

PREFACE

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The amendments in this publication include the following:

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Part VII. Solid Waste	SW046	April 20, 2008
Part IX. Water Quality	OS066 - repromulgated	June 20, 2008
Part XI. Underground Storage Tanks	UT012	May 2008
Part XV. Radiation Protection	RP045ft	June 20, 2008
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Log # Suffix Key:

- ft – Fast-Track Rule - Federal regulations promulgated in accordance with expedited procedures in R.S. 49:953(F)(3)
- F – Federal Language
- L – Louisiana Language
- S – Substantive Changes to Proposed Rule
- P – Rule resulting from a Petition for Rulemaking

Brenda Hayden

Environmental Regulatory Code Editor

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Title 33 ENVIRONMENTAL QUALITY

Part I. Office of the Secretary

Subpart 2. Notification

Chapter 39. Notification Regulations and Procedures for Unauthorized Discharges

Subchapter E. Reportable Quantities for Notification of Unauthorized Discharges

§3931. Reportable Quantity List for Pollutants

A. Incorporation by Reference of Federal Regulations

1. Except as provided in Subsection B of this Section, the following federal reportable quantity lists are incorporated by reference:

a. 40 CFR 117.3, July 1, 2007, Table 117.3—Reportable Quantities of Hazardous Substances Designated Pursuant to Section 311 of the Clean Water Act; and

b. 40 CFR 302.4, July 1, 2007, Table 302.4—List of Hazardous Substances and Reportable Quantities.

2. Notification Requirements. The following administrative reporting exemptions are hereby incorporated by reference:

a. 40 CFR 302.6(e), July 1, 2007—Notification Requirements; and

b. 40 CFR 355.40(a)(2)(vii), July 1, 2007—Emergency Release Notification.

B. – C. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2025(J), 2060(H), 2076(D), 2183(I), 2194(C), 2204(A), and 2373(B).

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of the Secretary, LR 11:770 (August 1985), amended LR 19:1022 (August 1993), LR 20:183 (February 1994), amended by the Office of Air Quality and Radiation Protection, Air Quality Division, LR 21:944 (September 1995), LR 22:341 (May 1996), amended by the Office of the Secretary, LR 24:1288 (July 1998), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 27:2229 (December 2001), LR 28:994 (May 2002), LR 29:698 (May 2003), LR 30:751 (April 2004), LR 30:1669 (August 2004), amended by the Office of Environmental Assessment, LR 31:919 (April 2005), amended by the Office of the Secretary, Legal Affairs Division, LR 32:603 (April 2006), LR 32:2248 (December 2006), LR 33:640 (April 2007), LR 33:2628 (December 2007), LR 34:69 (January 2008), LR 34:866 (May 2008), repromulgated LR 34:981 (June 2008).

Title 33

ENVIRONMENTAL QUALITY

Part III. Air

Chapter 5. Permit Procedures

§506. Clean Air Interstate Rule Requirements

A. Clean Air Interstate Rule (CAIR) Nitrogen Oxide (NO_x) Annual Program. This Subsection is adopted in lieu of 40 CFR 97.141 and 97.142 as promulgated under the CAIR Federal Implementation Plan (FIP) NO_x Annual Trading Program on April 28, 2006, at 71 FR 25328-25469 and as amended on October 19, 2007, at 72 FR 59190-59207. All provisions of 40 CFR Part 97, Subparts AA – HH, continue to apply, with the exception of §97.141 (Timing Requirements for CAIR NO_x Allowance Allocations) and §97.142 (CAIR NO_x Allowance Allocations). The provisions of this Subsection state how the CAIR NO_x annual allowances shall be allocated in accordance with this Section and 40 CFR 97.144(a).

1. Definitions. The terms used in Subsection A of this Section have the meaning given to them in the CAIR FIP (40 CFR Part 97 as promulgated on April 28, 2006), except for those terms defined herein.

Certified Unit—an electricity-generating unit that has been certified by the LPSC or approved by a municipal authority but was not in operation on, or approved by, December 31, 2004.

Certified Unit or Contract—Repealed.

* * *

Electric Public Utility—any person furnishing electric service within this state, including any electric cooperative transacting business in this state, provided, however, that the term shall not be construed to apply to any co-generator who consumes any or all of the electric power and energy that it generates or to any independent power producer who sells its entire production of electric power and energy to an *electric public utility* as herein defined.

Fuel Types—for the allocation of allowances under Louisiana's program, *fuel types* include solid, gaseous, or liquid fuel. The following definitions apply to *fuel types*.

i. *Solid Fuel*—includes, but is not limited to, coal and petroleum coke. Any amount of solid fuel that is combusted, alone, in series, or in combination with any other fuel, during any control period shall meet the definition of solid fuel.

ii. *Gaseous Fuel*—includes, but is not limited to, natural gas, propane, coal gas, and blast furnace gas. Any mixture containing at least 50 percent of gaseous fuel that is combusted with any liquid fuel during any control period shall meet the definition of gaseous fuel.

iii. *Liquid Fuel*—includes, but is not limited to, petroleum-based oils and glycerol.

* * *

LPSC or Municipal Certification—the process under which the LPSC certifies, or the relevant municipal authority approves, construction, conversion, or repowering of an electricity-generating unit as being in the public convenience and necessity. This process includes the certification or approval of long-term contracts that dedicate a portion of the electrical output of any generation facility to a utility unit. Long-term contracts are those contracts of at least one year in duration, provided that the municipality or utility unit expects to receive power under the contract within one year of the contract execution.

* * *

Utility Unit—a certified unit that is in operation, a previously-operational certified unit, a non-utility unit purchased by an electric public utility, or a non-utility unit that has an effective and active long-term contract with a utility unit. Long-term contracts are those contracts of at least one year in duration, provided that the municipality or utility unit expects to receive power under the contract within one year of the contract execution.

2. – 2.a. ...

b. Certified Units. A certified and permitted unit subject to CAIR shall be allocated NO_x allowances for the control period in which the unit will begin operation, and for each successive control period, for which no NO_x allowances have been previously allocated until operating data are available for the three calendar years immediately preceding the deadline for submission of the control period allocations. Until a unit has three calendar years of operating data immediately preceding the allocation submittal deadline, the converted heat input as calculated in Clause A.2.b.i or ii of this Section shall be used to allocate allowances for the unit. The certified unit shall be treated as a utility unit for the purposes of this allocation, except that converted heat input shall be used instead of adjusted heat input. Repowered utility units will be allocated in the same manner as certified units in the control period of certification. Converted heat input is calculated as follows.

i. For a solid fuel-fired unit, the hourly heat input for a specified calendar year shall equal the control period gross electrical output, including the capacity factor, of the generator(s) served by the unit multiplied by 7,900 BTU/KWh and divided by 1,000,000 BTU/MMBTU. The control period gross electrical output as stated in the documentation presented for the LPSC or municipal certification shall be used in this calculation. If a generator is served by two or more units, then the gross electrical output of the generator shall be attributed to each unit in proportion to the unit's share of the total control period heat input of all the units for the year.

ii. For a gaseous or liquid fuel-fired unit, the hourly heat input for a specified calendar year shall equal the control period gross electrical output, including the capacity factor, of the generator(s) served by the unit multiplied by 6,675 BTU/KWh and divided by 1,000,000 BTU/MMBTU. The control period gross electrical output as stated in the

documentation presented for the LPSC or municipal certification shall be used in this calculation. If a generator is served by two or more units, then the gross electrical output of the generator shall be attributed to each unit in proportion to the unit's share of the total control period heat input of all the units for the year.

c. **Utility Units.** The department shall allocate CAIR NO_x allowances to each CAIR utility unit by multiplying the CAIR NO_x budget for Louisiana (40 CFR 97.140), minus the allowances allocated under Subparagraph A.2.a of this Section, by the ratio of the adjusted heat input of the CAIR utility unit to the total amount of adjusted heat input and converted heat input of all CAIR utility units and certified units in the state and rounding to the nearest whole allowance. The adjusted heat input (in MMBTU) used with respect to the CAIR NO_x annual allowance for each CAIR utility unit shall be established as follows.

i. The average of the unit's control period adjusted heat input for the three calendar years immediately preceding the deadline for submission of allocations to the administrator shall be used (except that the allocation submitted in 2007 shall use the average of the control period adjusted heat input for calendar years 2002, 2003, and 2004), with the control period adjusted heat input for each year calculated as follows.

(a). If the unit is solid fuel-fired during a year, the unit's control period heat input for that year shall be multiplied by 100 percent.

(b). If the unit is liquid fuel-fired during a year, the unit's control period heat input for that year shall be multiplied by 60 percent.

(c). If the unit is not subject to Subclause A.2.c.i.(a) or (b) of this Section, the unit's control period heat input for the year shall be multiplied by 40 percent.

ii. A unit's control period heat input, fuel type, and total tons of NO_x emissions during a calendar year shall be determined in accordance with 40 CFR Part 97 and reported in accordance with LAC 33:III.919.

3. – 3.b. ...

4. **Reclassification of Units.** When the ownership of a unit is transferred, the unit is reclassified accordingly as a utility or non-utility unit. The department will allocate future allowances using the new classification, beginning with the allocation submission deadline after the effective date of the unit reclassification. The electric public utility must notify the department of the transfer of ownership. No changes will be made without written notification from the electric public utility.

B. Clean Air Interstate Rule (CAIR) Nitrogen Oxide (NO_x) Ozone Season Program. This Subsection is adopted in lieu of 40 CFR 97.341 and 97.342 as promulgated under the CAIR Federal Implementation Plan (FIP) NO_x Ozone Season Trading Program on April 28, 2006, at 71 FR 25328-25469 and as amended on October 19, 2007, at 72 FR 59190-59207. All provisions of 40 CFR Part 97, Subparts

AAAA – HHHH, continue to apply, with the exception of §97.341 (Timing Requirements for CAIR NO_x Ozone Season Allowance Allocations) and §97.342 (CAIR NO_x Ozone Season Allowance Allocations). The provisions of this Subsection state how the CAIR NO_x ozone season allowances shall be allocated in accordance with this Section and 40 CFR 97.343(a).

1. – 2.a. ...

b. **Certified Units.** A certified and permitted unit subject to CAIR shall be allocated NO_x allowances for the ozone season of the control period in which the unit will begin operation, and for each successive ozone season in a control period, for which no NO_x allowances have been previously allocated until ozone season operating data are available for the three calendar years immediately preceding the deadline for submission of the control period allocations. Until a unit has three years of ozone season operating data preceding the allocation submittal deadline, the converted heat input as calculated in Clause B.2.b.i or ii of this Section shall be used to allocate ozone season allowances for the unit. The certified unit shall be treated as a utility unit for purposes of this allocation, except that ozone season converted heat input shall be used instead of ozone season adjusted heat input. Repowered utility units will be allocated in the same manner as certified units in the control period of certification. Ozone season converted heat input is calculated as follows.

i. For a solid fuel-fired unit, the hourly heat input for a specified calendar year shall equal the control period gross electrical output, including the capacity factor, of the generator(s) served by the unit multiplied by 7,900 BTU/KWh and divided by 1,000,000 BTU/MMBTU. If the control period gross electrical output is unavailable, the hourly heat input for a specified calendar year shall equal the annual gross electrical output, including the capacity factor, of the generator(s) served by the unit multiplied by 7,900 BTU/KWh and divided by 1,000,000 BTU/MMBTU, and multiplied by 5/12. The control period gross electrical output as stated in the documentation presented for the LPSC or municipal certification shall be used in this calculation. If a generator is served by two or more units, then the gross electrical output of the generator shall be attributed to each unit in proportion to the unit's share of the total control period heat input of all the units for the specified ozone season.

ii. For a gaseous or liquid fuel-fired unit, the hourly heat input for a specified calendar year shall equal the control period gross electrical output, including the capacity factor, of the generator(s) served by the unit multiplied by 6,675 BTU/KWh and divided by 1,000,000 BTU/MMBTU. If the control period gross electrical output is unavailable, the hourly heat input for a specified calendar year shall equal the annual gross electrical output, including the capacity factor, of the generator(s) served by the unit multiplied by 6,675 BTU/KWh and divided by 1,000,000 BTU/MMBTU, and multiplied by 5/12. The control period gross electrical output as stated in the documentation presented for the LPSC or municipal certification shall be used in this

calculation. If a generator is served by two or more units, then the gross electrical output of the generator shall be attributed to each unit in proportion to the unit's share of the total control period heat input of all the units for the specified ozone season.

c. **Utility Units.** The department shall allocate CAIR NO_x ozone season allowances to each CAIR utility unit by multiplying the CAIR NO_x ozone season budget for Louisiana (40 CFR 97.340), minus the allowances allocated under Subparagraph B.2.a of this Section, by the ratio of the ozone season adjusted heat input of the CAIR utility unit to the total amount of ozone season adjusted heat input and converted heat input of all CAIR utility units and certified units in the state and rounding to the nearest whole allowance. The ozone season adjusted heat input (in MMBTU) used with respect to the CAIR NO_x ozone season allowance for each CAIR utility unit shall be established as follows.

i. The average of the unit's control period ozone season adjusted heat input for the three calendar years immediately preceding the deadline for submission of allocations to the administrator shall be used (except that the allocation submitted in 2007 shall use the average of the control period ozone season adjusted heat input for calendar years 2002, 2003, and 2004), with the control period ozone season adjusted heat input for each year calculated as follows.

(a). If the unit is solid fuel-fired during a year, the unit's control period ozone season heat input for that year shall be multiplied by 100 percent.

(b). If the unit is liquid fuel-fired during a year, the unit's control period ozone season heat input for that year shall be multiplied by 60 percent.

(c). If the unit is not subject to Subclause B.2.c.i.(a) or (b) of this Section, the unit's control period ozone season heat input for the year shall be multiplied by 40 percent.

ii. A unit's control period ozone season heat input, fuel type, and total tons of NO_x ozone season emissions during a calendar year shall be determined in accordance with 40 CFR Part 97 and reported in accordance with LAC 33:III.919.

3. – 3.b. ...

4. **Reclassification of Units.** When the ownership of a unit is transferred, the unit is reclassified accordingly as a utility or non-utility unit. The department will allocate future allowances using the new classification, beginning with the allocation submission deadline after the effective date of the unit reclassification. The electric public utility must notify the department of the transfer of ownership. No changes will be made without written notification from the electric public utility.

C. Annual Sulfur Dioxide. Except as specified in this Section, the Federal SO₂ Model Rule, published in the *Code of Federal Regulations* at 40 CFR Part 96, July 1, 2007, and as revised at 72 FR 59190-59207, October 19, 2007, is hereby incorporated by reference, except for Subpart III–CAIR SO₂ Opt-in Units and all references to opt-in units.

D. – E. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2054.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of the Secretary, Legal Affairs Division, LR 32:1597 (September 2006), amended LR 33:1622 (August 2007), LR 33:2083 (October 2007), LR 34:978 (June 2008).

Title 33
ENVIRONMENTAL QUALITY
Part V. Hazardous Waste and
Hazardous Materials
Subpart 1. Department of
Environmental Quality—Hazardous
Waste
Chapter 1. General Provisions and
Definitions

§105. Program Scope

These rules and regulations apply to owners and operators of all facilities that generate, transport, treat, store, or dispose of hazardous waste, except as specifically provided otherwise herein. The procedures of these regulations also apply to the denial of a permit for the active life of a hazardous waste management facility or TSD unit under LAC 33:V.706. Definitions appropriate to these rules and regulations, including *solid waste* and *hazardous waste*, appear in LAC 33:V.109. Wastes that are excluded from regulation are found in this Section.

A. – D.1.i.iii.(d). ...

(e). prior to operating pursuant to this exclusion, the plant owner or operator submits to the Office of Environmental Services a one-time notification stating that the plant intends to claim the exclusion, giving the date on which the plant intends to begin operating under the exclusion, and containing the following language:

"I have read the applicable regulation establishing an exclusion for wood preserving wastewaters and spent wood preserving solutions and understand it requires me to comply at all times with the conditions set out in the regulation."

The plant must maintain a copy of that document in its on-site records until closure of the facility. The exclusion applies so long as the plant meets all of the conditions. If the plant goes out of compliance with any condition, it may apply to the administrative authority for reinstatement. The administrative authority may reinstate the exclusion upon finding that the plant has returned to compliance with all conditions and that violations are not likely to recur;

1.j. – 1.u.iii.(e). ...

(f). all laboratory analytical results used to determine compliance with the contaminant limits specified in this Subparagraph;

v. used cathode ray tubes (CRTs) meeting the following requirements:

i. *used, intact CRTs* as defined in LAC 33:V.109.*Cathode Ray Tube or CRT*, unless they are disposed, or unless they are *accumulated speculatively* as defined in LAC 33:V.109 by CRT collectors or glass processors;

ii. *used, intact CRTs* that are exported for recycling provided that they meet the requirements of LAC 33:V.4913;

iii. *used, broken CRTs* as defined in LAC 33:V.109.*Cathode Ray Tube or CRT* that meet the requirements of LAC 33:V.4911;

iv. glass removed from CRTs, provided that it meets the requirements of LAC 33:V.4911.

D.2. - 6.h. ...

i. the facility prepares and submits a report to the Office of Environmental Services, by March 15 of each year, that includes the following information for the previous calendar year:

D.6.i.i. – H. ...

I. Petitions for Equivalent Testing or Analytical Methods

1. Any person seeking approval of an equivalent testing or analytical method may petition for a regulatory amendment under this Subsection and LAC 33:I.Chapter 9. To be successful, the petitioner must demonstrate to the satisfaction of the administrative authority that the proposed method is equal to or superior to the corresponding method prescribed in these regulations, in terms of its sensitivity, accuracy, and precision (i.e., reproducibility).

2. – 2.b. ...

c. comparative results obtained from using the proposed method with those obtained from using the relevant or corresponding methods prescribed in these regulations;

I.2.d. – K.2.b ...

L. Additional Regulation of Certain Hazardous Waste Recycling Activities on a Case-by-Case Basis

1. Additional Regulation of Certain Hazardous Waste Recycling Activities on a Case-by-Case Basis. The administrative authority may decide on a case-by-case basis that persons accumulating or storing the recyclable materials described in LAC 33:V.4143 should be regulated under LAC 33:V.4105.B and C. The basis for this decision is that the materials are being accumulated or stored in a manner that does not protect human health and the environment because the materials or their toxic constituents have not been adequately contained, or because the materials being accumulated or stored together are incompatible. In making this decision, the administrative authority will consider the following factors:

a. – e. ...

2. Procedures for Case-by-Case Regulation of Hazardous Waste Recycling Activities. The administrative authority will use the following procedures when determining whether to regulate hazardous waste recycling activities described in LAC 33:V.4143 under the provisions of LAC 33:V.4105.B and C, rather than under the provisions of LAC 33:V.4143:

L.2.b. - M.3.a. ...

i. does not contain the constituent or constituents (as defined in LAC 33:V.4901.G, Table 6) that caused the administrative authority to list the waste; or

M.3.ii. – O.2.b.i. ...

ii. the extent to which the material is handled before reclamation to minimize loss;

iii. the time periods between generating the material and its reclamation and between reclamation and return to the original primary production process;

iv. the location of the reclamation operation in relation to the production process;

v. whether the reclaimed material is used for the purpose for which it was originally produced when it is returned to the original process, and whether it is returned to the process in substantially its original form;

vi. whether the person who generates the material also reclaims it; and

vii. other relevant factors.

c. The administrative authority may grant requests for a variance from classifying as a solid waste those materials that have been reclaimed but must be reclaimed further before recovery is completed if, after initial reclamation, the resulting material is commodity-like (even though it is not yet a commercial product, and has to be reclaimed further). This determination will be based on the following factors:

O.2.c.i. – P.2. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq., and in particular, 2186(A)(2).

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 11:1139 (December 1985), LR 12:319 (May 1986), LR 13:84 (February 1987), LR 13:433 (August 1987), LR 13:651 (November 1987), LR 14:790 (November 1988), LR 15:181 (March 1989), LR 16:47 (January 1990), LR 16:217, LR 16:220 (March 1990), LR 16:398 (May 1990), LR 16:614 (July 1990), LR 17:362, 368 (April 1991), LR 17:478 (May 1991), LR 17:883 (September 1991), LR 18:723 (July 1992), LR 18:1256 (November 1992), LR 18:1375 (December 1992), amended by the Office of the Secretary, LR 19:1022 (August 1993), amended by the Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 20:1000 (September 1994), LR 21:266 (March 1995), LR 21:944 (September 1995), LR 22:813, 831 (September 1996), amended by the Office of the Secretary, LR 23:298 (March 1997), amended by the Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:564, 567 (May 1997), LR 23:721 (June

1997), amended by the Office of Waste Services, Hazardous Waste Division, LR 23:952 (August 1997), LR 23:1511 (November 1997), LR 24:298 (February 1998), LR 24:655 (April 1998), LR 24:1093 (June 1998), LR 24:1687, 1759 (September 1998), LR 25:431 (March 1999), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:268 (February 2000), LR 26:2464 (November 2000), LR 27:291 (March 2001), LR 27:706 (May 2001), LR 29:317 (March 2003), LR 30:1680 (August 2004), amended by the Office of Environmental Assessment, LR 30:2463 (November 2004), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2451 (October 2005), LR 32:605 (April 2006), LR 32:821 (May 2006), LR 33:450 (March 2007), LR 33:2097 (October 2007), LR 34:614 (April 2008), LR 34:1008 (June 2008).

§109. Definitions

For all purposes of these rules and regulations, the terms defined in this Chapter shall have the following meanings, unless the context of use clearly indicates otherwise.

* * *

Cathode Ray Tube or CRT—a vacuum tube, composed primarily of glass, that is the visual or video display component of an electronic device. A *used, intact CRT* means a CRT whose vacuum has not been released. A *used, broken CRT* means a CRT that has had the glass removed from its housing or casing and whose vacuum has been released.

* * *

CRT Collector—a person who receives used, intact CRTs for recycling, repair, resale, or donation.

CRT Glass Manufacturer—an operation or part of an operation that uses a furnace to manufacture CRT glass.

CRT Glass Manufacturing Facility—repealed.

CRT Processing—conducting any of the following activities:

1. receiving broken or intact CRTs;
2. intentionally breaking intact CRTs or further breaking or separating broken CRTs; or
3. sorting or otherwise managing glass removed from CRTs.
4. repealed.

* * *

Hazardous Waste—a *solid waste*, as defined in this Section, is a hazardous waste if:

1. – 2.b. ...

c. it is a mixture of solid waste and one or more hazardous wastes listed in LAC 33:V.4901 and has not been excluded from Paragraph 2 or Subparagraphs 4.e and f of this definition under LAC 33:V.105.D and M; however, the following mixtures of solid wastes and hazardous wastes listed in LAC 33:V.4901 are not hazardous wastes (except by application of Subparagraph 2.a or b of this definition) if the generator can demonstrate that the mixture consists of

wastewater, the discharge of which is subject to regulation under either Section 402 or Section 307(b) of the Clean Water Act (including wastewater at facilities that have eliminated the discharge of wastewater) and:

i. one or more of the following spent solvents listed in LAC 33:V.4901.B—benzene, carbon tetrachloride, tetrachloroethylene, trichloroethylene, or scrubber waters derived from the combustion of these spent solvents—provided that the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system does not exceed 1 part per million, or the total measured concentration of these solvents entering the headworks of the facility's wastewater treatment system (at facilities subject to regulation under the Clean Air Act as amended, at 40 CFR Part 60, 61, or 63, as incorporated by reference at LAC 33:III.3003, 5116, and 5122, respectively, or at facilities subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions) does not exceed 1 part per million on an average weekly basis. Any facility that uses benzene as a solvent and claims this exemption must use an aerated biological wastewater treatment system and must use only lined surface impoundments or tanks prior to secondary clarification in the wastewater treatment system. Facilities that choose to measure concentration levels must file a copy of their sampling and analysis plan with the administrative authority. A facility must file a copy of a revised sampling and analysis plan only if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan must include the monitoring point location (headworks), the sampling frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once it receives confirmation that the sampling and analysis plan has been received by the administrative authority. The administrative authority may reject the sampling and analysis plan if it finds that the sampling and analysis plan fails to include the above information, or the plan parameters would not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the administrative authority rejects the sampling and analysis plan or if the administrative authority finds that the facility is not following the sampling and analysis plan, the administrative authority shall notify the facility to cease the use of the direct monitoring option until such time as the bases for rejection are corrected; or

ii. one or more of the following spent solvents listed in LAC 33:V.4901.B—methylene chloride, 1,1,1-trichloroethane, chlorobenzene, o-dichlorobenzene, cresols, cresylic acid, nitrobenzene, toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, spent chlorofluorocarbon solvents, 2-ethoxyethanol, or the scrubber waters derived from the combustion of these spent solvents—provided that the maximum total weekly usage of these solvents (other than the amounts that can be

demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system does not exceed 25 parts per million, or the total measured concentration of these solvents entering the headworks of the facility's wastewater treatment system (at facilities subject to regulation under the Clean Air Act as amended, at 40 CFR Part 60, 61, or 63, as incorporated by reference at LAC 33:III.3003, 5116, and 5122, respectively, or at facilities subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions) does not exceed 25 parts per million on an average weekly basis. Facilities that choose to measure concentration levels must file a copy of their sampling and analysis plan with the administrative authority. A facility must file a copy of a revised sampling and analysis plan only if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan must include the monitoring point location (headworks), the sampling frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once it receives confirmation that the sampling and analysis plan has been received by the administrative authority. The administrative authority may reject the sampling and analysis plan if it finds that the sampling and analysis plan fails to include the above information, or the plan parameters would not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the administrative authority rejects the sampling and analysis plan or if the administrative authority finds that the facility is not following the sampling and analysis plan, the administrative authority shall notify the facility to cease the use of the direct monitoring option until such time as the bases for rejection are corrected; or

iii. ...

iv. a discarded hazardous waste, commercial chemical product, or chemical intermediate listed in LAC 33:V.4901.A, B.1-2, and C-F arising from de minimis losses of these materials. For purposes of this Clause, de minimis losses are inadvertent releases to a wastewater treatment system, including those from normal material handling operations (e.g., spills from the unloading or transfer of materials from bins or other containers, leaks from pipes, valves, or other devices used to transfer materials); minor leaks of process equipment, storage tanks, or containers; leaks from well-maintained pump packings and seals; sample purgings; relief device discharges; discharges from safety showers and rinsing and cleaning of personal safety equipment; and rinsate from empty containers or from containers rendered empty by that rinsing. Any manufacturing facility that claims an exemption for de minimis quantities of wastes listed in LAC 33:V.4901.B and C, or any nonmanufacturing facility that claims an exemption for de minimis quantities of wastes listed in LAC 33:V.Chapter 49, must either have eliminated the discharge of wastewaters or have included in its Clean Water Act permit application or submission to its pretreatment control authority the constituents for which

each waste was listed in LAC 33:V.4901.G and the constituents in LAC 33:V.2299.Table 2, Treatment Standards for Hazardous Wastes, for which each waste has a treatment standard (i.e., Land Disposal Restriction constituents). A facility is eligible to claim the exemption once the administrative authority has been notified of possible de minimis releases via the Clean Water Act permit application or the pretreatment control authority submission. A copy of the Clean Water Act permit application or the submission to the pretreatment control authority must be placed in the facility's on-site files; or

v. ...

vi. one or more of the following wastes listed in LAC 33:V.4901.C—wastewaters from the production of carbamates and carbamoyl oximes (EPA Hazardous Waste Number K157)—provided that the maximum weekly usage of formaldehyde, methyl chloride, methylene chloride, and triethylamine (including all amounts that cannot be demonstrated to be reacted in the process, destroyed through treatment, or recovered, i.e., what is discharged or volatilized) divided by the average weekly flow of process wastewater prior to any dilution into the headworks of the facility's wastewater treatment system does not exceed a total of 5 parts per million by weight, or the total measured concentration of these chemicals entering the headworks of the facility's wastewater treatment system (at facilities subject to regulation under the Clean Air Act as amended, at 40 CFR Part 60, 61, or 63, as incorporated by reference at LAC 33:III.3003, 5116, and 5122, respectively, or at facilities subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions) does not exceed 5 parts per million on an average weekly basis. Facilities that choose to measure concentration levels must file a copy of their sampling and analysis plan with the administrative authority. A facility must file a copy of a revised sampling and analysis plan only if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan must include the monitoring point location (headworks), the sampling frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once it receives confirmation that the sampling and analysis plan has been received by the administrative authority. The administrative authority may reject the sampling and analysis plan if it finds that the sampling and analysis plan fails to include the above information, or the plan parameters would not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the administrative authority rejects the sampling and analysis plan or if the administrative authority finds that the facility is not following the sampling and analysis plan, the administrative authority shall notify the facility to cease the use of the direct monitoring option until such time as the bases for rejection are corrected; or

vii. wastewaters derived from the treatment of one or more of the following wastes listed in LAC 33:V.4901.C—organic waste (including heavy ends,

still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes (EPA Hazardous Waste Number K156)—provided that the maximum concentration of formaldehyde, methyl chloride, methylene chloride, and triethylamine prior to any dilutions into the headworks of the facility's wastewater treatment system does not exceed a total of 5 milligrams per liter, or the total measured concentration of these chemicals entering the headworks of the facility's wastewater treatment system (at facilities subject to regulation under the Clean Air Act as amended, at 40 CFR Part 60, 61, or 63, as incorporated by reference at LAC 33:III.3003, 5116, and 5122, respectively, or at facilities subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions) does not exceed 5 milligrams per liter on an average weekly basis. Facilities that choose to measure concentration levels must file a copy of their sampling and analysis plan with the administrative authority. A facility must file a copy of a revised sampling and analysis plan only if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan must include the monitoring point location (headworks), the sampling frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once it receives confirmation that the sampling and analysis plan has been received by the administrative authority. The administrative authority may reject the sampling and analysis plan if it finds that the sampling and analysis plan fails to include the above information, or the plan parameters would not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the administrative authority rejects the sampling and analysis plan or if the administrative authority finds that the facility is not following the sampling and analysis plan, the administrative authority shall notify the facility to cease the use of the direct monitoring option until such time as the bases for rejection are corrected; and

d. Rebuttable Presumption for Used Oil. Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in LAC 33:V.4901. Persons may rebut this presumption by demonstrating that the used oil does not contain hazardous waste (e.g., by showing that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in LAC 33:V.3105, Table 1):

2.d.i. - 6.b. ...

* * *

Holocene—the most recent epoch of the quaternary period, extending from the end of the Pleistocene to the present.

* * *

Incompatible Waste—a hazardous waste that is unsuitable for placement in a particular device or facility because it may cause corrosion or decay of containment materials (e.g.,

container inner liners or tank walls), or that is unsuitable for commingling with another waste or material under uncontrolled conditions because the commingling might produce heat or pressure; fire or explosion; violent reaction; toxic dusts, mists, fumes, or gases; or flammable fumes or gases. For examples of potentially incompatible wastes, see LAC 33:V.199.Appendix B.

* * *

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 11:1139 (December 1985), LR 12:319 (May 1986), LR 13:84 (February 1987), LR 13:433 (August 1987), LR 13:651 (November 1987), LR 14:790, 791 (November 1988), LR 15:378 (May 1989), LR 15:737 (September 1989), LR 16:218, 220 (March 1990), LR 16:399 (May 1990), LR 16:614 (July 1990), LR 16:683 (August 1990), LR 17:362 (April 1991), LR 17:478 (May 1991), LR 18:723 (July 1992), LR 18:1375 (December 1992), repromulgated by the Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 19:626 (May 1993), amended LR 20:1000 (September 1994), LR 20:1109 (October 1994), LR 21:266 (March 1995), LR 21:944 (September 1995), LR 22:814 (September 1996), LR 23:564 (May 1997), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:655 (April 1998), LR 24:1101 (June 1998), LR 24:1688 (September 1998), LR 25:433 (March 1999), repromulgated LR 25:853 (May 1999), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:269 (February 2000), LR 26:2465 (November 2000), LR 27:291 (March 2001), LR 27:708 (May 2001), LR 28:999 (May 2002), LR 28:1191 (June 2002), LR 29:318 (March 2003); amended by the Office of the Secretary, Legal Affairs Division, LR 31:2452 (October 2005), LR 31:3116 (December 2005), LR 32:606 (April 2006), LR 32:822 (May 2006), LR 33:1625 (August 2007), LR 33:2098 (October 2007), LR 34:71 (January 2008), LR 34:615 (April 2008), LR 34:1009 (June 2008).

§110. References

A. When used in LAC 33:V.Subpart 1 the publications and methods listed in this Section shall be used to comply with these regulations.

B. The following materials are available for purchase from the American Society for Testing and Materials, 100 Barr Harbor Drive, Box C700, West Conshohocken, PA 19428-2959, or go to: <http://www.astm.org>:

1. ASTM D-3278-78, "Standard Test Methods for Flash Point for Liquids by Setaflash Closed Tester," approved for LAC 33:V.4903.B;

2. ASTM D-93-79 or D-93-80, "Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester," approved for LAC 33:V.4903.B;

3. ASTM D-1946-82, "Standard Method for Analysis of Reformed Gas by Gas Chromatography," approved for LAC 33:V.1709 and 4555;

4. ASTM D 2382-83, "Standard Test Method for Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method)," approved for LAC 33:V.1709 and 4555;

5. ASTM E 169-87, "Standard Practices for General Techniques of Ultraviolet-Visible Quantitative Analysis," approved for LAC 33:V.1741;

6. ASTM E 168-88, "Standard Practices for General Techniques of Infrared Quantitative Analysis," approved for LAC 33:V.1741;

7. ASTM E 260-85, "Standard Practice for Packed Column Gas Chromatography," approved for LAC 33:V.1741;

8. ASTM D 2267-88, "Standard Test Method for Aromatics in Light Naphthas and Aviation Gasolines by Gas Chromatography," approved for LAC 33:V.1741;

9. ASTM D 2879-92, "Standard Test Method for Vapor Pressure—Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope," approved for LAC 33:V.4727;

10. ASTM E 926-88, "Standard Test Methods for Preparing Refuse-Derived Fuel (RDF) Samples for Analyses of Metals," Test Method C—Bomb, Acid Digestion Method.

C. The following materials are available for purchase from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161; or from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, (202) 512-1800:

1. "APTI Course 415: Control of Gaseous Emissions," EPA Publication EPA-450/2-81-005, December 1981, approved for LAC 33:V.1713 and 4559;

2. "Method 1664, Revision A, n-Hexane Extractable Material (HEM; Oil and Grease) and Silica Gel Treated n-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, PB99-121949," approved for LAC 33:V.4999.Appendix E;

3. the following methods as published in the test methods compendium known as *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, EPA Publication SW-846, Third Edition. A suffix "A" in the method number indicates revision one (the method has been revised once). A suffix "B" in the method number indicates revision two (the method has been revised twice). A suffix "C" in the method number indicates revision three (the method has been revised three times). A suffix "D" in the method number indicates revision four (the method has been revised four times):

a. Method 0010, dated September 1986 and in the Basic Manual, approved for LAC 33:V.4999.Appendix E;

b. Method 0020, dated September 1986 and in the Basic Manual, approved for LAC 33:V.4999.Appendix E;

c. Method 0030, dated September 1986 and in the Basic Manual, approved for LAC 33:V.4999.Appendix E;

d. Method 1320, dated September 1986 and in the Basic Manual, approved for LAC 33:V.4999.Appendix E;

e. Method 1311, dated September 1992 and in Update I, approved for LAC 33:V.2223, 2245, 2247, 4903.E, and 4999.Appendix E;

f. Method 1330A, dated September 1992 and in Update I, approved for LAC 33:V.4999.Appendix E;

g. Method 1312 dated September 1994 and in Update II, approved for LAC 33:V.4999.Appendix E;

h. Method 0011, dated December 1996 and in Update III, approved for LAC 33:V.3099.Appendix I and 4999.Appendix E;

i. Method 0023A, dated December 1996 and in Update III, approved for LAC 33:V.3009, 3099.Appendix I, and 4999.Appendix E;

j. Method 0031, dated December 1996 and in Update III, approved for LAC 33:V.4999.Appendix E;

k. Method 0040, dated December 1996 and in Update III, approved for LAC 33:V.4999.Appendix E;

l. Method 0050, dated December 1996 and in Update III, approved for LAC 33:V.3015, 3099.Appendix I, and 4999.Appendix E;

m. Method 0051, dated December 1996 and in Update III, approved for LAC 33:V.3015, 3099.Appendix I, and 4999.Appendix E;

n. Method 0060, dated December 1996 and in Update III, approved for LAC 33:V.3013, 3099.Appendix I, and 4999.Appendix E;

o. Method 0061, dated December 1996 and in Update III, approved for LAC 33:V.3013, 3099.Appendix I, and 4999.Appendix E;

p. Method 9071B, dated April 1998 and in Update IIIA, approved for LAC 33:V.4999.Appendix E;

q. Method 1010A, dated November 2004 and in Update IIIB, approved for LAC 33:V.4999.Appendix E;

r. Method 1020B, dated November 2004 and in Update IIIB, approved for LAC 33:V.4999.Appendix E;

s. Method 1110A, dated November 2004 and in Update IIIB, approved for LAC 33:V.4903.C and 4999.Appendix E;

t. Method 1310B, dated November 2004 and in Update IIIB, approved for LAC 33:V.4999.Appendix E;

u. Method 9010C, dated November 2004 and in Update IIIB, approved for LAC 33:V.2299, Tables 2, 7, and 10, and 4999.Appendix E;

v. Method 9012B, dated November 2004 and in Update IIIB, approved for LAC 33:V.2299, Tables 2, 7, and 10, and 4999.Appendix E;

w. Method 9040C, dated November 2004 and in Update IIIB, approved for LAC 33:V.4903.C and 4999.Appendix E;

x. Method 9045D, dated November 2004 and in Update IIIB, approved for LAC 33:V.4999.Appendix E;

y. Method 9060A, dated November 2004 and in Update IIIB, approved for LAC 33:V.1711, 1741, 4557, 4587, and 4999.Appendix E;

z. Method 9070A, dated November 2004 and in Update IIIB, approved for LAC 33:V.4999.Appendix E;

aa. Method 9095B, dated November 2004 and in Update IIIB, approved, LAC 33:V.1901, 2515, 4431, 4507, 4721, and 4999.Appendix E.

D. The following materials are available for purchase from the National Fire Protection Association, 1 Batterymarch Park, Box 9101, Quincy, MA 02269-9101:

1. "Flammable and Combustible Liquids Code" (1977 or 1981), approved for LAC 33:V.1917, and 4443;

2. Reserved.

E. The following materials are available for purchase from the American Petroleum Institute, 1220 L Street, Northwest, Washington, DC 20005:

1. API Publication 2517, Third Edition, February 1989, "Evaporative Loss from External Floating-Roof Tanks," approved for LAC 33:V.4727;

2. Reserved.

F. The following materials are available for purchase from the Environmental Protection Agency, Research Triangle Park, NC:

1. "Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, Revised," October 1992, EPA Publication Number EPA-450/R-92-019, approved for LAC 33:V.3099.Appendix I;

2. Reserved.

G. The following materials are available for purchase from the Organisation for Economic Co-operation and Development, Environment Directorate, 2 rue Andre Pascal, 75775 Paris Cedex 16, France:

1. The OECD Green List of Wastes (revised May 1994), the Amber List of Wastes and Red List of Wastes (both revised May 1993) as set forth in Appendix 3, Appendix 4, and Appendix 5, respectively, to the OECD Council Decision C(92)39/FINAL (Concerning the Control of Transfrontier Movements of Wastes Destined for Recovery Operations), approved for LAC 33:V.1127.I;

2. Reserved.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 22:814 (September 1996), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:656 (April 1998), LR 24:1690 (September 1998), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:270 (February 2000), LR 27:291 (March 2001),

amended by the Office of the Secretary, Legal Affairs Division, LR 34:1010 (June 2008).

§199. Appendices—Appendices A and B

A. Appendix A—Equations for the Development of Soil and Groundwater Standards

* * *

[See prior text in Appendix A]

B. Appendix B—Examples of Potentially Incompatible Waste¹

1. Many hazardous wastes, when mixed with other waste or materials at a hazardous waste facility, can produce effects that are harmful to human health and the environment, such as:

- a. heat or pressure;
- b. fire or explosion;
- c. violent reaction;
- d. toxic dusts, mists, fumes, or gases; or
- e. flammable fumes or gases.

2. Paragraph 5 of this Appendix contains examples of potentially incompatible wastes, waste components, and materials, along with the harmful consequences that result from mixing materials in one group with materials in another group. Paragraph 5 is intended as a guide to owners or operators of treatment, storage, and disposal facilities, and to enforcement and permit-granting officials, to indicate the need for special precautions when managing these potentially incompatible waste materials or components.

3. The tables in Paragraph 5 are not intended to be exhaustive. An owner or operator must, as the regulations require, adequately analyze his wastes so that he can avoid creating uncontrolled substances or reactions of the types listed in Paragraph 5, whether they are listed in Paragraph 5 or not.

4. It is possible for potentially incompatible wastes to be mixed in a way that precludes a reaction (e.g., adding acid to water rather than water to acid) or that neutralizes them (e.g., a strong acid mixed with a strong base), or that controls substances produced (e.g., by generating flammable gases in a closed tank equipped so that ignition cannot occur, and burning the gases in an incinerator).

5. In the tables below, the mixing of a Group A material with a Group B material may have the potential consequence as noted.

Group 1 Materials
Group 1-A:
Acetylene sludge
Alkaline caustic liquids
Alkaline cleaner
Alkaline corrosive liquids
Alkaline corrosive battery fluid
Caustic wastewater
Lime sludge and other corrosive alkalis

Group 1 Materials
Lime wastewater
Lime and water
Spent caustic
Group 1-B:
Acid sludge
Acid and water
Battery acid
Chemical cleaners
Electrolyte, acid
Etching acid liquid or solvent
Pickling liquor and other corrosive acids
Spent acid
Spent mixed acid
Spent sulfuric acid
Potential Consequences:
Heat generation or violent reaction

Group 2 Materials
Group 2-A:
Aluminum
Beryllium
Calcium
Lithium
Magnesium
Potassium
Sodium
Zinc powder
Other reactive metals and metal hydrides
Group 2-B:
Any waste in Group 1-A or 1-B
Potential Consequences:
Fire or explosion; generation of flammable hydrogen gas

Group 3 Materials
Group 3-A:
Alcohols
Water
Group 3-B:
Any concentrated waste in Group 1-A or 1-B
Calcium
Lithium
Metal hydrides
Potassium
SO ₂ Cl ₂ , SOCl ₂ , PCl ₃ , CH ₃ SiCl ₃
Other water-reactive waste
Potential Consequences:
Fire, explosion, or heat generation; generation of flammable or toxic gases

Group 4 Materials
Group 4-A:
Alcohols
Aldehydes
Halogenated hydrocarbons
Nitrated hydrocarbons
Unsaturated hydrocarbons
Other reactive organic compounds and solvents
Group 4-B:
Concentrated Group 1-A or 1-B wastes
Group 2-A wastes
Potential Consequences:
Fire, explosion, or violent reaction

Group 5 Materials
Group 5-A:
Spent cyanide and sulfide solutions
Group 5-B:
Group 1-B wastes
Potential Consequences:
Generation of toxic hydrogen cyanide or hydrogen sulfide gas

Group 6 Materials
Group 6-A:
Chlorates
Chlorine
Chlorites
Chromic acid
Hypochlorites
Nitrates
Nitric acid, fuming
Perchlorates
Permanganates
Peroxides
Other strong oxidizers
Group 6-B:
Acetic acid and other organic acids
Concentrated mineral acids
Group 2-A wastes
Group 4-A wastes
Other flammable and combustible wastes
Potential Consequences:
Fire, explosion, or violent reaction

¹Source: "Law, Regulations, and Guidelines for Handling of Hazardous Waste." California Department of Health, February 1975.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq. and, in particular, 2186(A)(2).

HISTORICAL NOTE: Promulgated by the Office of the Secretary, Legal Affairs Division, LR 33:452 (March 2007), amended LR 34:617 (April 2008).

Chapter 3. General Conditions for Treatment, Storage, and Disposal Facility Permits

§303. Overview of the Permit Program

A. – P.2. ...

Q. Other Information. The administrative authority may require a permittee or an applicant to submit relevant information in order to establish permit conditions under LAC 33:V.311.E-F and 315.

R. If the administrative authority concludes, based on one or more of the factors listed in Paragraphs R.1-9 of this Section, that compliance with the standards of 40 CFR Part 63, Subpart EEE, as incorporated by reference at LAC 33:III.5122, alone may not be protective of human health or the environment, the administrative authority shall require the additional information or assessment necessary to determine whether additional controls are necessary to ensure protection of human health and the environment. This includes information necessary to evaluate the potential risk to human health and/or the environment resulting from both direct and indirect exposure pathways. The administrative

authority may also require a permittee or applicant to provide information necessary to determine whether such an assessment should be required. The administrative authority shall base the evaluation of whether compliance with the standards of 40 CFR Part 63, Subpart EEE, as incorporated by reference at LAC 33:III.5122, alone is protective of human health or the environment on factors relevant to the potential risk from a hazardous waste combustion unit, including, as appropriate, any of the following factors:

1. particular site-specific considerations such as proximity to receptors (such as schools, hospitals, nursing homes, day care centers, parks, community activity centers, or other potentially sensitive receptors), unique dispersion patterns, etc.;

2. identities and quantities of emissions of persistent, bioaccumulative, or toxic pollutants considering enforceable controls in place to limit those pollutants;

3. identities and quantities of nondioxin products of incomplete combustion most likely to be emitted and to pose significant risk based on known toxicities (confirmation of which should be made through emissions testing);

4. identities and quantities of other off-site sources of pollutants in proximity to the facility that significantly influence interpretation of a facility-specific risk assessment;

5. presence of significant ecological considerations, such as the proximity of a particularly sensitive ecological area;

6. volume and types of wastes, for example wastes containing highly toxic constituents;

7. other on-site sources of hazardous air pollutants that significantly influence interpretation of the risk posed by the operation of the source in question;

8. the adequacy of any previously conducted risk assessment, given any subsequent changes in conditions likely to affect risk; and

9. such other factors as may be appropriate.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 14:790 (November 1988), LR 16:220 (March 1990), LR 17:478 (May 1991), LR 17:658 (July 1991), LR 20:1000 (September 1994), LR 21:564 (June 1995), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2466 (November 2000), LR 27:708 (May 2001), amended by the Office of Environmental Assessment, LR 30:2023 (September 2004), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2453 (October 2005), LR 33:2099 (October 2007), LR 34:619 (April 2008).

§305. Scope of the Permit

A. – C.12. ...

13. a person, not required to obtain a RCRA permit for treatment or containment activities taken during immediate response to any of the following situations:

C.13.a. – H. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 13:84 (February 1987), LR 13:433 (August 1987), LR 16:220 (March 1990), LR 16:614 (July 1990), LR 17:658 (July 1991), LR 20:1000 (September 1994), LR 20:1109 (October 1994), LR 21:944 (September 1995), LR 23:567 (May 1997), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1105 (June 1998), LR 24:1690, 1759 (September 1998), LR 25:435 (March 1999), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 27:708 (May 2001), amended by the Office of the Secretary, Legal Affairs Division, LR 31:3116 (December 2005), LR 33:1625 (August 2007), LR 34:619 (April 2008).

§311. Establishing Permit Conditions

A. – E. ...

F. RCRA Permits for Hazardous Waste Combustion Units. If, as the result of an assessment or other information, the administrative authority determines that conditions are necessary in addition to those required under 40 CFR Part 63, Subpart EEE, as incorporated by reference at LAC 33:III.5122, or LAC 33:V.Chapters 11, 15, 17, 19, 21, 22, 23, 25, 27, 28, 29, 30, 31, 32, 33, 35, 37, and 41, to ensure protection of human health and the environment, the administrative authority shall include those conditions in a RCRA permit for a hazardous waste combustion unit.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:280 (April 1984), LR 16:220 (March 1990), LR 18:1256 (November 1992), LR 20:1000 (September 1994), amended by the Office of the Secretary, Legal Affairs Division, LR 34:619 (April 2008).

§321. Modification of Permits

A. – C.9. ...

10. Combustion Facility Changes to Meet 40 CFR Part 63 Maximum Achievable Control Technology (MACT) Standards, as Incorporated by Reference at LAC 33:III.5122. The following procedures apply to hazardous waste combustion facility permit modifications requested under LAC 33:V.322.L.9.

a. Facility owners or operators must have complied with the Notification of Intent to Comply (NIC) requirements of 40 CFR 63.1210 that were in effect prior to October 11, 2000 (see 40 CFR 63.1200-1499, revised as of July 1, 2000) in order to request a permit modification under this Section for the purpose of technology changes needed to meet the standards under 40 CFR 63.1203-1205.

b. Facility owners or operators must comply with the NIC requirements of 40 CFR 63.1210(b) and 63.1212(a) before a permit modification can be requested under this Section for the purpose of technology changes needed to meet the 40 CFR 63.1215-1221 standards promulgated on October 12, 2005.

c. If the administrative authority does not approve or deny the request within 90 days of receiving it, the request shall be deemed approved. The administrative authority may, at his or her discretion, extend this 90-day deadline one time for up to 30 days by notifying the facility owner or operator.

11. Waiver of RCRA Permit Conditions in Support of Transition to the 40 CFR Part 63 MACT Standards, as Incorporated by Reference at LAC 33:III.5122

a. Facility owners or operators may request to have specific RCRA operating and emissions limits waived by submitting a Class 1 permit modification request under the requirements of this Section and LAC 33:V.322.L.10. As part of this request, the facility owner or operator must:

i. identify the specific RCRA permit operating and emissions limits which the facility owner or operator is requesting to waive;

ii. provide an explanation of why the changes are necessary in order to minimize or eliminate conflicts between the RCRA permit and MACT compliance; and

iii. provide an explanation of how the revised provisions will be sufficiently protective.

b. The administrative authority shall approve or deny the request within 30 days of receipt of the request. The administrative authority may extend, at his or her discretion, this 30-day deadline one time for up to 30 days by notifying the facility owner or operator.

c. The facility owner or operator may request this modification in conjunction with MACT performance testing where permit limits may only be waived during actual test events and pretesting, as defined in 40 CFR 63.1207(h)(2)(i) and (ii), for an aggregate time not to exceed 720 hours of operation (renewable at the discretion of the administrative authority). The modification request shall be submitted to the administrative authority at the same time that the test plans are submitted. The administrative authority may elect to approve or deny this request contingent upon approval of the test plans.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:433 (August 1987), LR 15:378 (May 1989), LR 16:614 (July 1990), LR 18:1375 (December 1992), LR 20:1000 (September 1994), LR 21:266 (March 1995), LR 21:944 (September 1995), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1691 (September 1998), LR 25:435 (March 1999), amended by the Office of Environmental Assessment,

Environmental Planning Division, LR 26:2466 (November 2000), LR 28:1000 (May 2002), LR 29:319 (March 2003), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2430, 2454 (October 2005), LR 33:2100 (October 2007), LR 34:619 (April 2008).

§322. Classification of Permit Modifications

The following is a listing of classifications of permit modifications made at the request of the permittee.

Modifications	Class
* * *	
[See Prior Text in A. – C.3.]	
4. Changes in point of compliance	2
* * *	
[See Prior Text in C.5. – L.9.]	
10. Changes to RCRA permit provisions needed to support transition to 40 CFR Part 63, Subpart EEE, as incorporated by reference at LAC 33:III.5122, provided the procedures of LAC 33:V.321.C.11 are followed	1 ¹
* * *	
[See Prior Text in M. – N.3.]	
O. Burden Reduction	
1. Development of one contingency plan based on Integrated Contingency Plan Guidance pursuant to LAC 33:V.1513.B.2	1
2. Changes to recordkeeping and reporting requirements pursuant to LAC 33:V.1513.F.9, 1737.B.1, 1739.A.2, 1913.F, 3111.A.2, 3321.G, and 3513.E.5	1
3. Changes to inspection frequency for tank systems pursuant to LAC 33:V.1911.B	1
4. Changes to detection and compliance monitoring program pursuant to LAC 33:V.3317.D, G.2, and G.3, and 3319.F and G	1
¹ Class 1 modifications requiring prior administrative authority approval.	

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:433 (August 1987), LR 16:614 (July 1990), LR 17:658 (July 1991), LR 21:266 (March 1995), LR 21:944 (September 1995), LR 22:815 (September 1996), amended by the Office of the Secretary, LR 24:2245 (December 1998), amended by the Office of Waste Services, Hazardous Waste Division, LR 25:436 (March 1999), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:270 (February 2000), LR 27:292 (March 2001), amended by the Office of the Secretary, Legal Affairs Division, LR 34:620 (April 2008), LR 34:992 (June 2008).

Chapter 5. Permit Application Contents

Subchapter B. Signatories to Permit Applications and Reports, Changes of Authorizations, and Certifications

§513. Certification

A.1. – Certification. ...

2. For remedial action plans (RAPs) under LAC 33:V.Chapter 5.Subchapter G, if the operator certifies

according to Paragraph A.1 of this Section, then the owner may choose to make the following certification instead of the certification in Paragraph A.1 of this Section.

"Based on my knowledge of the conditions of the property described in the RAP and my inquiry of the person or persons who manage the system referenced in the operator's certification, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

B.1. – B.2.Statement. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 18:1256 (November 1992), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:271 (February 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 34:620 (April 2008).

Subchapter E. Specific Information Requirements

§519. Contents of Part II: General Requirements

A. Part II of the permit application consists of the general information requirements of this Section, and the specific information requirements in LAC 33:V.519-549 applicable to the facility. The Part II information requirements presented in LAC 33:V.519-549 reflect the standards promulgated in LAC 33:V.Chapters 15, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 35, and 37. These information requirements are necessary in order for the administrative authority to determine compliance with LAC 33:V.Chapters 15, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 35, and 37. If owners and operators of Hazardous Waste Management facilities can demonstrate that the information prescribed in Part II cannot be provided to the extent required, the administrative authority may make allowance for submission of such information on a case-by-case basis. Information required in Part II shall be submitted to the administrative authority and signed in accordance with requirements in Subchapter B of this Chapter. Certain technical data, such as design drawings and specifications and engineering studies, shall be certified by a qualified professional engineer. For post-closure permits, only the information specified in LAC 33:V.528 is required in Part II of the permit application.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:280 (April 1984), amended by the Office of Waste Services, Hazardous Waste Division, LR 25:436 (March 1999), amended by the Office of Environmental Assessment, Environmental Planning

Division, LR 25:1465 (August 1999), amended by the Office of the Secretary, Legal Affairs Division, LR 34:992 (June 2008).

§523. Specific Part II Information Requirements for Tanks

Except as otherwise provided in LAC 33:V.1901, owners and operators of facilities that use tanks to store or treat hazardous waste must provide the following additional information:

A. a written assessment that is reviewed and certified by an independent, qualified professional engineer as to the structural integrity and suitability for handling hazardous waste for each tank system, as required under LAC 33:V.1903 and 1905;

B. – K. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:280 (April 1984), LR 13:433 (August 1987) LR 16:220 (March 1990), LR 16:614 (July 1990), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1692 (September 1998), amended by the Office of the Secretary, Legal Affairs Division, LR 34:992 (June 2008).

§529. Specific Part II Information Requirements for Incinerators

Except as LAC 33:V.Chapter 31 and Subsection F of this Section provide otherwise, owners and operators of facilities that incinerate hazardous waste must fulfill the requirements of Subsection A, B, or C of this Section:

A. – C.1.b. ...

c. an identification of any hazardous organic constituents listed in LAC 33:V.3105, Table 1, that are present in the waste to be burned, except that the applicant need not analyze for constituents listed in LAC 33:V.3105, Table 1, which would reasonably not be expected to be found in the waste. The constituents excluded from analysis must be identified and the basis for their exclusion stated. The waste analysis must rely on appropriate analytical techniques;

d. an approximate quantification of the hazardous constituents identified in the waste, within the precision produced by appropriate analytical methods;

C.1.e. – E.3. ...

F. when an owner or operator of a hazardous waste incineration unit becomes subject to RCRA permit requirements after October 12, 2005, or when an owner or operator of an existing hazardous waste incineration unit demonstrates compliance with the air emission standards and limitations in 40 CFR Part 63, Subpart EEE, as incorporated by reference at LAC 33:III.5122 (i.e., by conducting a comprehensive performance test and submitting a notification of compliance in accordance with 40 CFR 63.1207(j) and 63.1210(d), documenting compliance with all

applicable requirements of 40 CFR Part 63, Subpart EEE), the requirements of this Section do not apply, except those provisions the administrative authority determines are necessary to ensure compliance with LAC 33:V.3117.A and C if the owner or operator elects to comply with LAC 33:V.2001.A.1.a to minimize emissions of toxic compounds from startup, shutdown, and malfunction events. Nevertheless, the administrative authority may apply the provisions of this Section, on a case-by-case basis, for purposes of information collection in accordance with LAC 33:V.303.Q-R and 311.E-F.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2011(D)(24)(a) and 2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:280 (April 1984), LR 22:817 (September 1996), amended by the Office of Waste Services, Hazardous Waste Division, LR 25:2199 (November 1999), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 27:292 (March 2001), LR 29:319 (March 2003), amended by the Office of Environmental Assessment, LR 31:1571 (July 2005), amended by the Office of the Secretary, Legal Affairs Division, LR 34:620 (April 2008), LR 34:1011 (June 2008).

§530. Specific Part II Information Requirements for Process Vents

Except as otherwise provided in LAC 33:V.1501, owners and operators of facilities that have process vents to which LAC 33:V.Chapter 17.Subchapter A applies must provide the following additional information.

A. – D.2. ...

3. a design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "APTI Course 415: Control of Gaseous Emissions," as incorporated by reference at LAC 33:V.110, or other engineering texts acceptable to the administrative authority that present basic control device information. The design analysis shall address the vent stream characteristics and control device operation parameters as specified in LAC 33:V.1713.B.4.c;

4. – 5. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 17:658 (July 1991), amended LR 18:1256 (November 1992), LR 22:817 (September 1996), amended by the Office of the Secretary, Legal Affairs Division, LR 34:621 (April 2008).

§532. Special Part II Information Requirements for Drip Pads

A. – A.3.n. ...

o. a certification signed by an independent, qualified professional engineer stating that the drip pad design meets the requirements of LAC 33:V.2805.A-F;

p. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995), amended by the Office of the Secretary, Legal Affairs Division, LR 34:993 (June 2008).

§535. Specific Part II Information Requirements for Boilers and Industrial Furnaces Burning Hazardous Waste for Energy or Material Recovery and Not for Destruction

A. – A.2.b.i. ...

ii. results of analyses of each waste to be burned, documenting the concentrations of nonmetal compounds listed in LAC 33:V.4901.G, Table 6, except for those constituents that would reasonably not be expected to be in the waste. The constituents excluded from analysis must be identified and the basis for their exclusion explained. The analysis must rely on appropriate analytical techniques;

A.2.b.iii. – F. ...

G. When an owner or operator of a cement or lightweight aggregate kiln, solid fuel or liquid fuel boiler, or hydrochloric acid production furnace becomes subject to RCRA permit requirements after October 12, 2005, or when an owner or operator of an existing cement or lightweight aggregate kiln, solid fuel or liquid fuel boiler, or hydrochloric acid production furnace demonstrates compliance with the air emission standards and limitations in 40 CFR Part 63, Subpart EEE, as incorporated by reference at LAC 33:III.5122 (i.e., by conducting a comprehensive performance test and submitting a notification of compliance in accordance with 40 CFR 63.1207(j) and 63.1210(d), documenting compliance with all applicable requirements of 40 CFR Part 63, Subpart EEE), the requirements of this Section do not apply. However, the requirements of this Section do apply if:

1. the administrative authority determines that certain provisions of this Section are necessary to ensure compliance with LAC 33:V.3005.E.1 and 2.c if the owner or operator elects to comply with LAC 33:V.2001.A.1.a to minimize emissions of toxic compounds from startup, shutdown, and malfunction events;

2. the facility is an *area source* as defined in LAC 33:III.5103 and the owner or operator elects to comply with the standards and associated requirements in LAC 33:V.3011, 3013, and 3015 for particulate matter, non-mercury metals, and hydrogen chloride and chlorine gas; or

3. the administrative authority determines that certain provisions of this Section apply, on a case-by-case basis, for purposes of information collection in accordance with LAC 33:V.303.Q-R and 311.E-F.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 15:737 (September 1989), amended

LR 18:1375 (December 1992), LR 21:266 (March 1995), LR 22:817 (September 1996), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 27:292 (March 2001), LR 29:319 (March 2003), amended by the Office of the Secretary, Legal Affairs Division, LR 34:621 (April 2008), LR 34:1011 (June 2008).

§536. Specific Part II Information Requirements for Equipment

Except as otherwise provided in LAC 33:V.1501, owners and operators of facilities that have equipment to which LAC 33:V.Chapter 17.Subchapter B applies must provide the following additional information.

A. – E.2. ...

3. a design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "APTI Course 415: Control of Gaseous Emissions," as incorporated by reference at LAC 33:V.110, or other engineering texts acceptable to the administrative authority that present basic control device information. The design analysis shall address the vent stream characteristics and control device operation parameters as specified in LAC 33:V.1713.B.4.c;

4. – 5. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 17:658 (July 1991), amended LR 18:1256 (November 1992), LR 22:817 (September 1996), amended by the Office of the Secretary, Legal Affairs Division, LR 34:621 (April 2008).

Subchapter F. Special Forms of Permits

§537. Permits for Boiler and Industrial Furnaces Burning Hazardous Waste for Recycling Purposes Only (Boilers and industrial furnaces burning hazardous waste for destruction are subject to permit requirements for incinerators.)

A. – B.2.b.ii. ...

(a) an identification of any hazardous organic constituents listed in LAC 33:V.3105, Table 1, that are present in the feed stream, except that the applicant need not analyze for constituents listed in LAC 33:V.3105, Table 1, that would reasonably not be expected to be found in the hazardous waste. The constituents excluded from analysis must be identified and the basis for this exclusion explained. The waste analysis must be conducted in accordance with appropriate analytical techniques;

(b) an approximate quantification of the hazardous constituents identified in the hazardous waste, within the precision produced by appropriate analytical methods;

B.2.b.ii.(c). – C.2. ...

D. When an owner or operator of a cement or lightweight aggregate kiln, solid fuel or liquid fuel boiler, or hydrochloric acid production furnace becomes subject to RCRA permit requirements after October 12, 2005, or when an owner or operator of an existing cement or lightweight aggregate kiln, solid fuel or liquid fuel boiler, or hydrochloric acid production furnace demonstrates compliance with the air emission standards and limitations in 40 CFR Part 63, Subpart EEE, as incorporated by reference at LAC 33:III.5122 (i.e., by conducting a comprehensive performance test and submitting a notification of compliance in accordance with 40 CFR 63.1207(j) and 63.1210(d), documenting compliance with all applicable requirements of 40 CFR Part 63, Subpart EEE), the requirements of this Section do not apply. However, the requirements of this Section do apply if:

1. the administrative authority determines that certain provisions of this Section are necessary to ensure compliance with LAC 33:V.3005.E.1 and 2.c if the owner or operator elects to comply with LAC 33:V.2001.A.1.a to minimize emissions of toxic compounds from startup, shutdown, and malfunction events;

2. the facility is an *area source* as defined in LAC 33:III.5103 and the owner or operator elects to comply with the standards and associated requirements in LAC 33:V.3011, 3013, and 3015 for particulate matter, non-mercury metals, and hydrogen chloride and chlorine gas; or

3. the administrative authority determines that certain provisions of this Section apply, on a case-by-case basis, for purposes of information collection in accordance with LAC 33:V.303.Q-R and 311.E-F.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 15:737 (September 1989), amended LR 18:1375 (December 1992), LR 21:266 (March 1995), LR 22:818, 832 (September 1996), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:657 (April 1998), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2468 (November 2000), LR 27:292 (March 2001), LR 29:320 (March 2003), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2455 (October 2005), LR 33:2101 (October 2007), LR 34:622 (April 2008), LR 34:1012 (June 2008).

Chapter 11. Generators

Subchapter A. General

§1107. The Manifest System

A. – B.1.e. ...

2. The certification that appears on the manifest must be read, signed, and dated by the generator as follows.

"I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, marked, and labeled/placarded, and are

in all respects in proper condition for transport by highway according to applicable international and national government regulations. If this is an export shipment and I am the primary exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent."

C. – E.2. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 12:319 (May 1986), LR 16:220 (March 1990), LR 17:362 (April 1991), LR 17:478 (May 1991), LR 18:1256 (November 1992), LR 20:1109 (October 1994), LR 21:266, 267 (March 1995), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1693 (September 1998), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2470 (November 2000), LR 27:42 (January 2001), LR 27:709 (May 2001), amended by the Office of the Secretary, Legal Affairs Division, LR 32:823 (May 2006), LR 33:89 (January 2007), repromulgated LR 33:281 (February 2007), amended LR 33:2101 (October 2007), LR 34:622 (April 2008).

§1109. Pre-Transport Requirements

A. – C, Manifest Tracking Number. ...

D. Placarding. Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must placard, or offer the initial transporter the appropriate placards for, the shipment according to Department of Public Safety regulations for hazardous materials under LAC 33:V.Subpart 2.Chapter 105.

E. – F.2. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 13:433 (August 1987), LR 16:47 (January 1990), LR 16:220 (March 1990), LR 16:1057 (December 1990), LR 17:658 (July 1991), LR 18:1256 (November 1992), LR 18:1375 (December 1992), LR 20:1000 (September 1994), LR 20:1109 (October 1994), LR 21:266 (March 1995), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1693 (September 1998), LR 25:437 (March 1999), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 25:1466 (August 1999), LR 26:277 (February 2000), LR 26:2470 (November 2000), LR 27:293 (March 2001), LR 27:709, 716 (May 2001), LR 27:1014 (July 2001), LR 30:1673 (August 2004), amended by the Office of Environmental Assessment, LR 31:1571 (July 2005), amended by the Office of the Secretary, Legal Affairs Division, LR 32:823 (May 2006), LR 33:2102 (October 2007), LR 34:622 (April 2008).

§1113. Exports of Hazardous Waste

A. – D.1.b.viii. ...

2. Notification shall be sent to the Office of Environmental Services, with "Attention: Notification to Export" prominently displayed on the front of the envelope.

[NOTE: This does not relieve the regulated community from the requirement of submitting notification to the Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division (2254A), Environmental Protection Agency, 1200 Pennsylvania Ave., NW, Washington, DC 20460, as required by 40 CFR 262.53(b) and LAC 33:V.1113.D.1.]

D.3. – I.1. ...

a. For the purposes of these regulations the designated OECD countries consist of Australia, Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, South Korea, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States.

1.b. – 2. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 16:220 (March 1990), LR 18:1256 (November 1992), LR 20:1000 (September 1994), LR 20:1109 (October 1994), LR 21:944 (September 1995), LR 22:20 (January 1996), amended by the Office of the Secretary, LR 22:344 (May 1996), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:661 (April 1998), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2471 (November 2000), LR 27:710 (May 2001), amended by the Office of the Secretary, Legal Affairs Division, LR 32:824 (May 2006), LR 33:2102 (October 2007), LR 34:72 (January 2008), LR 34:622 (April 2008).

Subchapter B. Transfrontier Shipments of Hazardous Waste

§1127. Transfrontier Shipments of Hazardous Waste for Recovery within the OECD

A. – A.2. ...

B. General Conditions

1. Scope. The level of control for exports and imports of waste is indicated by assignment of the waste to a green, amber, or red list and by United States national procedures as defined in Paragraph A.1 of this Section. The green, amber, and red lists are incorporated by reference in LAC 33:V.110.

B.1.a. – I.4. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Waste Services, Hazardous Waste Division, LR 24:661 (April 1998), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2471 (November 2000), LR 27:293 (March 2001), amended by the Office of the Secretary, Legal Affairs Division, LR 33:2103

(October 2007), LR 34:72 (January 2008), LR 34:1012 (June 2008).

Chapter 15. Treatment, Storage, and Disposal Facilities

§1501. Applicability

A. – C.1. ...

2. the owner or operator of a facility managing recycled material described in LAC 33:V.4105.A (except to the extent they are referred to in LAC 33:V.Chapter 30 or 40 or LAC 33:V.4139, 4141, 4143, or 4145);

C.3. – H.13. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 18:1256 (November 1992), LR 21:266 (March 1995), LR 21:944 (September 1995), LR 23:565, 568 (May 1997), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1106 (June 1998), LR 24:1694, 1759 (September 1998), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:277 (February 2000), LR 27:711 (May 2001), amended by the Office of the Secretary, Legal Affairs Division, LR 31:3117 (December 2005), LR 32:606 (April 2006), LR 34:623 (April 2008).

§1509. General Inspection Requirements

A.1. – A.2. ...

B. Inspection Schedule

1. – 3. ...

4. The frequency of inspection may vary for the items on the schedule. However, the frequency should be based on the rate of possible deterioration of the equipment and the probability of an environmental or human health incident if the deterioration, a malfunction, or operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, must be inspected daily when in use. At a minimum, the inspection schedule must include the terms and frequencies called for in LAC 33:V.1709, 1719, 1721, 1731, 1753, 1755, 1757, 1759, 1761, 1763, 1765, 1907, 1911, 2109, 2309, 2507, 2711, 2907, 3119, and 3205, where applicable.

[Comment: LAC 33:V.517.G requires the inspection schedule to be submitted with Part II of the permit application. The department will evaluate the schedule along with the rest of the application to ensure that it adequately protects human health and the environment. As part of this review, the department may modify or amend the schedule as may be necessary.]

C. – D. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR

17:658 (July 1991), LR 18:1256 (November 1992), LR 21:266 (March 1995), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1695 (September 1998), LR 25:437 (March 1999), amended by the Office of the Secretary, Legal Affairs Division, LR 34:993 (June 2008).

§1513. Contingency Plan and Emergency Procedures

A. – B.1. ...

2. If the owner or operator has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with 40 CFR Part 112 or 40 CFR Part 300, or some other emergency or contingency plan, he need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with these requirements. The owner or operator may develop one contingency plan that meets all regulatory requirements. EPA recommends that the plan be based on the National Response Team's Integrated Contingency Plan Guidance ("One Plan"). When modifications are made to non-RCRA provisions in an integrated contingency plan, the changes do not trigger the need for a RCRA permit modification.

B.3. – F.8.a. ...

b. all emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

9. The owner or operator must note in the operating record the time, date, and details of any incident that requires implementation of the contingency plan. Within 15 days after the incident, he must submit a written report on the incident to SPOC that includes:

- a. name, address, and telephone number of the owner or operator;
- b. name, address, and telephone number of the facility;
- c. date, time, and type of incident (e.g., fire, explosion);
- d. name and quantity of material(s) involved;
- e. the extent of injuries, if any;
- f. an assessment of actual or potential hazards to human health or the environment, where this is applicable; and
- g. estimated quantity and disposition of recovered material that resulted from the incident.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 16:614 (July 1990), LR 18:1256 (November 1992), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2472 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2456 (October 2005), LR 33:2104 (October 2007), LR 34:993 (June 2008).

§1515. Personnel Training

A. – A.4. ...

5. For facility employees who receive emergency response training pursuant to Occupational Safety and Health Administration (OSHA) regulations in 29 CFR 1910.120(p)(8) and 1910.120(q), the facility is not required to provide separate emergency response training pursuant to this Section, provided that the overall facility training meets all the requirements of this Section.

B. – E. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended by the Office of the Secretary, Legal Affairs Division, LR 34:993 (June 2008).

§1516. Manifest System for Treatment, Storage, and Disposal (TSD) Facilities

A. – C.5.a.iii. ...

iv. Copy the manifest tracking number in Item 4 of the new manifest to the manifest reference number line in the Discrepancy block of the old manifest (Item 18a).

C.5.a.v. – C.6.a.iii. ...

iv. Copy the manifest tracking number in Item 4 of the new manifest to the manifest reference number line in the Discrepancy block of the old manifest (Item 18a).

C.6.a.v. – D.7.Comment. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of the Secretary, Legal Affairs Division, LR 32:825 (May 2006), amended LR 33:2104 (October 2007), LR 34:623 (April 2008), LR 34:1012 (June 2008).

§1529. Operating Record and Reporting Requirements

A. ...

B. The following information must be recorded, as it becomes available, and maintained in the operating record for three years, unless otherwise specified in Paragraphs B.1-22 of this Section:

1. a description and the quantity of each hazardous waste received, and the method(s) and date(s) of its treatment, storage, or disposal at the facility, utilizing specifications in Tables 1 and 2 of this Section. This information must be maintained in the operating record until closure of the facility;

2. –

3. record the estimated or manifest-reported weight, or volume and density, where applicable, in one of the units of measure specified in Table 1:

Table 1. Units For Reporting	
Unit of Measure	Code ¹

[See Prior Text in Gallons – Btu's per Hour]	
Pounds	P
Short tons	T
Kilograms	K
Tons	M
¹ Single digit symbols are used here for data processing purposes.	

4. the method(s) [by handling code(s) as specified in Table 2] and date(s) of treatment, storage, or disposal:

Table 2. Handling Codes for Treatment, Storage, and Disposal Methods	
Enter the handling code(s) listed below that most closely represents the technique(s) used at the facility to treat, store, or dispose of each quantity of hazardous waste received.	
Storage	

[See Prior Text in S01 – S99]	
Treatment	
Thermal Treatment	

[See Prior Text in T06 – T18]	
Chemical Treatment	

[See Prior Text in T19 – T34]	
Physical Treatment	
Separation of Components:	

[See Prior Text in T35 – T47]	
Removal of Specific Components:	

[See Prior Text in T48 – T66]	
Biological Treatment	

[See Prior Text in T67 – T74]	
T75	Trickling filter

[See Prior Text in T76 – T79]	
Boilers and Industrial Furnaces	

[See Prior Text in T80 – T93]	
Other Treatment	

[See Prior Text in T94]	
Disposal	

[See Prior Text in D79 – D99]	
Miscellaneous (Chapter 32)	

[See Prior Text in X01 – X99]	

5. the location of each hazardous waste within the facility and the quantity at each location. For disposal facilities, the location and quantity of each hazardous waste must be recorded on a map or diagram that shows each cell or disposal area. For all facilities, this information must include cross-references to manifest document numbers, if the waste was accompanied by a manifest. This information

must be maintained in the operating record until closure of the facility;

6. – 8. ...

9. monitoring, testing, or analytical data, and corrective action where required by LAC 33:V.1504, 1711.C-F, 1713, 1741.D-I, 1743, 1751, 1753, 1755, 1757, 1759, 1761, 1763, 1765, 1767, 1903, 1907, 1911, 2304, 2306, 2309, 2504, 2507, 2508, 2509, 2709, 2711, 2719, 2904, 2906, 2907, 3119, 3203, 3205, and Chapter 33, as well as corrective action cites. Maintain this information in the operating record for three years, except for records and results pertaining to groundwater monitoring and cleanup, which must be maintained in the operating record until closure of the facility;

10. ...

11. all closure cost estimates and, for disposal facilities, all post-closure cost estimates. This information must be maintained in the operating record until closure of the facility;

12. records of the quantities and date of placement for each shipment of hazardous waste placed in land disposal units under an extension to the effective date of any land disposal prohibition granted in accordance with LAC 33:V.2239, a petition approved in accordance with LAC 33:V.2241 or 2271, a determination made under LAC 33:V.2273, or a certification under LAC 33:V.2235 and the applicable notice required by a generator under LAC 33:V.2245. This information must be maintained in the operating record until closure of the facility;

13. – 18. ...

19. a certification by the permittee no less often than annually, that the permittee has a program in place to reduce the volume and toxicity of hazardous waste that he generates to the degree determined by the permittee to be economically practicable, and that the proposed method of treatment, storage, or disposal is that practicable method currently available to the permittee which minimizes the present and future threat to human health and the environment;

20. any records required under LAC 33:V.1501.H.13;

21. monitoring, testing, or analytical data where required by LAC 33:V.3119. This information must be maintained in the operating record for five years; and

22. certifications as required by LAC 33:V.1913.F. This information must be maintained in the operating record until closure of the facility.

C. – E. ...

1. releases, fires, and explosions as specified in LAC 33:V.1513.F.9;

2. – 3. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 15:378 (May 1989), LR 16:220 (March 1990), LR 16:399 (May 1990), LR 17:658 (July 1991), LR 18:1256 (November 1992), LR 20:1000 (September 1994), LR 21:266 (March 1995), LR 22:832 (September 1996), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1695 (September 1998), LR 25:437 (March 1999), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 25:1799 (October 1999), LR 26:278 (February 2000), LR 26:2473 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 32:827 (May 2006), LR 33:2104 (October 2007), LR 34:623 (April 2008), LR 34:993 (June 2008).

Chapter 17. Air Emission Standards

§1703. Definitions

A. As used in this Chapter, all terms not defined herein shall have the meanings given them in LAC 33:V.109.

* * *

Waste Stabilization Process—any physical or chemical process used to either reduce the mobility of hazardous constituents in a hazardous waste or eliminate free liquids as determined by Test Method 9095B (Paint Filter Liquids Test) in *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, EPA Publication SW-846 as incorporated by reference in LAC 33:V.110. A waste stabilization process includes mixing the hazardous waste with binders or other materials and curing the resulting hazardous waste and binder mixture. Other synonymous terms used to refer to this process are *waste fixation* and *waste solidification*. This does not include the adding of absorbent materials to the surface of a waste, without mixing, agitation, or subsequent curing, to absorb free liquid.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 17:658 (July 1991), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1696 (September 1998), LR 25:437 (March 1999), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:278 (February 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 34:1012 (June 2008).

Subchapter A. Process Vents

§1711. Test Methods and Procedures

A. – C.1.a. ...

b. Method 18 or Method 25A in LAC 33:III.6071 for organic content. If Method 25A is used, the organic hazardous air pollutants (HAP) used as the calibration gas must be the single organic HAP representing the largest percent by volume of the emissions. The use of Method 25A is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response

from the zero calibration gas when the instrument is zeroed on the most sensitive scale.

c. ...

d. Total organic mass flow rates shall be determined by one of the following equations:

i. for sources utilizing Method 18:

$$E_h = Q_{2sd} \left[\sum_{i=1}^n C_i MW_i \right] [0.0416] 10^{-6}$$

where:

E_h = total organic mass flow rate, kg/h
 Q_{2sd} = volumetric flow rate of gases entering or exiting control device, as determined by Method 2, dscm/h
 n = number of organic compounds in the vent gas
 C_i = organic concentration in ppm, dry basis, of compound i in the vent gas, as determined by Method 18
 MW_i = molecular weight of organic compound i in the vent gas, kg/kg-mol
 0.0416 = conversion factor for molar volume, kg-mol/m³ (@ 293 K and 760 mm Hg)
 10^{-6} = conversion from ppm

ii. for sources utilizing Method 25A:

$$E_h = (Q)(C)(MW)(0.0416)(10^{-6})$$

where:

E_h = total organic mass flow rate, kg/h
 Q = volumetric flow rate of gases entering or exiting control device, as determined by Method 2, dscm/h
 C = organic concentration in ppm, dry basis, as determined by Method 25A
 MW = molecular weight of propane, 44
 0.0416 = conversion factor for molar volume, kg-mol/m³ (@ 293 K and 760 mm Hg)
 10^{-6} = conversion from ppm

e. The annual total organic emission rate shall be determined by the following equation.

$$E_A = E_h H$$

where:

E_A = total organic mass emission rate, kg/y
 E_h = total organic mass flow rate for the process vent, kg/h
 H = total annual hours of operations for the affected unit, h

C.1.f. – D.1.b. ...

c. Each sample shall be analyzed, and the total organic concentration of the sample shall be computed using Method 9060A (incorporated by reference in LAC 33:V.110) of *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, EPA Publication SW-846, or each sample shall be analyzed for its individual organic constituents.

D.1.d. – E.3. ...

F. When an owner or operator and the administrative authority do not agree on whether a distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation manages a hazardous waste with organic concentrations of at least 10 ppmw based on knowledge of the waste, the dispute may be resolved by using direct measurement as specified in Paragraph D.1 of this Section.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 17:658 (July 1991), amended LR 20:1000 (September 1994), LR 22:818 (September 1996), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1699 (September 1998), amended by the Office of the Secretary, Legal Affairs Division, LR 34:1012 (June 2008).

Subchapter B. Equipment Leaks

§1737. Alternative Standards for Valves in Gas/Vapor Service or in Light Liquid Service: Percentage of Valves Allowed to Leak

A. – B. ...

1. A performance test as specified in Subsection C of this Section shall be conducted initially upon designation, annually, and at other times requested by the administrative authority.

2. If a valve leak is detected, it shall be repaired in accordance with LAC 33:V.1729.D and E.

C. Performance tests shall be conducted in the following manner.

1. - 3. ...

D. Repealed.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 17:658 (July 1991), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2473 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2456 (October 2005), LR 33:2105 (October 2007), LR 34:994 (June 2008).

§1739. Alternative Standards for Valves in Gas/Vapor Service or in Light Liquid Service: Skip Period Leak Detection and Repair

A. Alternative Work Practices. An owner or operator subject to the requirements of LAC 33:V.1729 may elect for all valves within a hazardous waste management unit to comply with one of the alternative work practices specified in Paragraphs B.2 and 3 of this Section.

B. Leak Detection Skip Period

1. – 4. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 17:658 (July 1991), amended by the Office of Waste Services, Hazardous Waste Division, LR 25:439 (March 1999), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2473 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2457 (October 2005), LR 33:2105 (October 2007), LR 34:994 (June 2008).

§1741. Test Methods and Procedures

A. – D.1. ...

2. Method 9060A (incorporated by reference in LAC 33:V.110) of *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, EPA Publication SW-846, for computing total organic concentration of the sample or analyzing for its individual organic constituents; or

D.3. – I. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 17:658 (July 1991), amended LR 20:1000 (September 1994), LR 22:819 (September 1996), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1701 (September 1998), amended by the Office of the Secretary, Legal Affairs Division, LR 34:1013 (June 2008).

Subchapter C. Air Emission Standards for Tanks, Surface Impoundments, and Containers

§1799. Appendix—Table 1, Compounds with Henry's Law Constant Less than 0.1 Y/X [At 25°C]

Table 1	
Compounds with Henry's Law Constant Less than 0.1 Y/X [At 25°C]	
Compound Name	CAS Number

[See Prior Text in AcetaldoI – 3,4-Dichlorotetrahydrofuran]	
Dichlorvos (DDVP)	62-73-7

Table 1	
Compounds with Henry's Law Constant Less than 0.1 Y/X [At 25°C]	
Compound Name	CAS Number

[See Prior Text in Diethanolamine – Ethylene glycol monophenyl ether (phenyl Cellosolve)]	
Ethylene glycol monopropyl ether (propyl Cellosolve)	2807-30-9
Ethylene thiourea (2-imidazolidinethione)	96-45-7

[See Prior Text in 4-Ethylmorpholine – beta- Naphthylamine]	
Neopentyl glycol (dimethylpropane)	126-30-7

[See Prior Text in Niacinamide – 3,4-Xylenol (3,4- dimethylphenol)]	

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Waste Services, Hazardous Waste Division, LR 24:1721 (September 1998), amended by the Office of the Secretary, Legal Affairs Division, LR 34:624 (April 2008).

Chapter 18. Containment Buildings

§1802. Design and Operating Standards

A. – B.3.b. ...

c. the secondary containment system must be constructed of materials that are chemically resistant to the waste and liquids managed in the containment building and of sufficient strength and thickness to prevent collapse under the pressure exerted by overlaying materials and by any equipment used in the containment building (Containment buildings can serve as secondary containment systems for tanks placed within the building under certain conditions. A containment building can serve as an external liner system for a tank, provided it meets the requirements of LAC 33:V.1907.E.1. In addition, the containment building must meet the requirements of LAC 33:V.1907.B and C.1 and 2 to be considered an acceptable secondary containment system for a tank.);

B.4. – C.3. ...

a. upon detection of a condition that has led to a release of hazardous waste (e.g., upon detection of leakage from the primary barrier) the owner or operator must:

3.a.i. – 4. ...

D. For a containment building that contains both areas with and without secondary containment, the owner or operator must:

D.1. – E. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995), amended by

the Office of Environmental Assessment, Environmental Planning Division, LR 26:2475 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 33:2106 (October 2007), LR 34:624 (April 2008).

Chapter 19. Tanks

§1901. Applicability

The requirements of this Chapter apply to owners and operators of facilities that use tank systems for storing or treating hazardous waste except as otherwise provided in Subsections A and B of this Section or LAC 33:V.1501.

A. Tank systems that are used to store or treat hazardous waste that contains no free liquids and are situated inside a building with an impermeable floor are exempted from the requirements of LAC 33:V.1907. To demonstrate the absence or presence of free liquids in the stored/treated waste, the following test method must be used: EPA Method 9095B (Paint Filter Liquids Test) as described in *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, EPA Publication SW-846, as incorporated by reference in LAC 33:V.110.

B. – C. ...

D. Tanks meeting the requirements for the accumulation time exclusion of LAC 33:V.305.C and 1109.E.1 are subject to the requirements of LAC 33:V.1903.A, 1905.B-H, 1907.A, 1907.B-I, 1909, 1911, 1913, 1915.D, 1917, and 1919.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:651 (November 1987), LR 16:614 (July 1990), LR 18:1375 (December 1992), LR 22:819 (September 1996), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1107 (June 1998), amended by the Office of the Secretary, Legal Affairs Division, LR 34:1013 (June 2008).

§1903. Assessment of Existing Tank System's Integrity

A. For each existing tank system that does not have secondary containment meeting the requirements of LAC 33:V.1907.B-I, the owner or operator must determine that the tank system is not leaking or is unfit for use. Except as provided in Subparagraph B.5.c of this Section, the owner or operator must obtain and keep on file at the facility a written assessment reviewed and certified by an independent, qualified professional engineer, in accordance with LAC 33:V.513, that attests to the tank system's integrity by November 20, 1988. Tanks excluded from permitting requirements under LAC 33:V.1109.E.1 must have an assessment as described in this Section by November 20, 1990.

B. – B.5.a. ...

b. for other than non-enterable underground tanks and for ancillary equipment, this assessment must include either a leak test, as described above, or other integrity examination, that is certified by an independent, qualified

professional engineer in accordance with LAC 33:V.513, that addresses cracks, leaks, corrosion and erosion;

c. – d. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:651 (November 1987), LR 16:614 (July 1990), LR 18:1256 (November 1992), amended by the Office of the Secretary, Legal Affairs Division, LR 34:994 (June 2008).

§1905. Design and Installation of New Tank Systems or Components

A. Owners or operators of new tank systems or components must obtain and submit to the Office of Environmental Services, at the time of submittal of Part II information, a written assessment, reviewed and certified by an independent, qualified professional engineer, in accordance with LAC 33:V.513, attesting that the tank system has sufficient structural integrity and is acceptable for the storing and treating of hazardous waste. The assessment must show that the foundation, structural support, seams, connections and pressure controls (if applicable) are adequately designed and that the tank system has sufficient structural strength, compatibility with the waste(s) to be stored or treated, and corrosion protection to ensure that it will not collapse, rupture or fail. This assessment, which will be used by the administrative authority to review and approve or disapprove the acceptability of the tank system design, must include, at a minimum, the following information:

1. – 5.c. ...

B. The owner or operator of a new tank system must ensure that proper handling procedures are adhered to in order to prevent damage to the system during installation.

1. Prior to covering, enclosing, or placing a new tank system or component in use, an independent, qualified installation inspector or an independent, qualified professional engineer, either of whom is trained and experienced in the proper installation of tank systems or components, must inspect the system for the presence of any of the following items:

- a. weld breaks;
- b. punctures;
- c. scrapes of protective coatings;
- d. cracks;
- e. corrosion;
- f. other structural damage or inadequate construction/installation.

2. All discrepancies must be remedied before the tank system is covered, enclosed, or placed in use.

C. – H. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:651 (November 1987), LR 16:614 (July 1990), LR 16:683 (August 1990), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2475 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 33:2107 (October 2007), LR 34:995 (June 2008).

§1907. Containment and Detection of Releases

A. ...

1. for all new and existing tank systems or components, prior to their being put into service; and

2. for tank systems that store or treat materials that become hazardous wastes, within two years of the hazardous waste listing, or when the tank system has reached 15 years of age, whichever comes later.

B. Secondary containment systems must be:

B.1. – C.3. ...

4. sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation. Spilled or leaked waste and accumulated precipitation must be removed from the secondary containment system within 24 hours, or in as timely a manner as is possible to prevent harm to human health and the environment, if the owner or operator can demonstrate to the administrative authority that removal of the released waste or accumulated precipitation cannot be accomplished within 24 hours.

[NOTE: If the collected material is a *hazardous waste* as defined in LAC 33:V.109, it is subject to management as a hazardous waste in accordance with all applicable requirements of LAC 33:V.Chapters 11, 13, 15, 17, 19, 21, 23, 25, 27, 28, 29, 31, 33, 35, 37, and 43. If the collected material is discharged through a point source to waters of the United States, it is subject to the requirements of Sections 301, 304, and 402 of the Clean Water Act, as amended. If discharged to a Publicly Owned Treatment Works (POTW), it is subject to the requirements of Section 307 of the Clean Water Act, as amended. If the collected material is released to the environment, it may be subject to the reporting requirements of 40 CFR Part 302.]

D. – E.2.e.i. ...

ii. meets the definition of reactive waste under LAC 33:V.4903.D, and may form an ignitable or explosive vapor; and

E.2.f. – I.2. ...

a. conduct a leak test as in Paragraph I.1 or 2 of this Section; or

b. develop a schedule and procedure for an assessment of the overall condition of the tank system by an independent, qualified professional engineer. The schedule and procedure must be adequate to detect obvious cracks, leaks, and corrosion or erosion that may lead to cracks and

leaks. The owner or operator must remove the stored waste from the tank, if necessary, to allow the condition of all internal tank surfaces to be assessed. The frequency of these assessments must be based on the material of construction of the tank and its ancillary equipment, the age of the system, the type of corrosion or erosion protection used, the rate of corrosion or erosion observed during the previous inspection, and the characteristics of the waste being stored or treated.

3. – 5. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:651 (November 1987), LR 14:790 (November 1988), LR 16:614 (July 1990), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2475 (November 2000), amended by the Office of Environmental Assessment, LR 31:1572 (July 2005), amended by the Office of the Secretary, Legal Affairs Division, LR 33:2107 (October 2007), LR 34:624 (April 2008), LR 34:995 (June 2008).

§1911. Inspections

A. ...

B. The owner or operator must inspect, at least once each operating day, data gathered from monitoring and leak detection equipment (e.g., pressure or temperature gauges, monitoring wells) to ensure that the tank system is being operated according to its design.

C. In addition, except as noted under Subsection D of this Section, the owner or operator must inspect at least once each operating day:

1. aboveground portions of the tank system, if any, to detect corrosion or releases of waste; and

2. the construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system (e.g., dikes) to detect erosion or signs of releases of hazardous waste (e.g., wet spots, dead vegetation).

D. Owners or operators of tank systems that either use leak detection systems to alert facility personnel to leaks, or implement established workplace practices to ensure that leaks are promptly identified, must inspect at least weekly those areas described in Paragraphs C.1 and 2 of this Section. Use of the alternate inspection schedule must be documented in the facility's operating record. This documentation must include a description of the established workplace practices at the facility.

E. Ancillary equipment that is not provided with secondary containment, as described in LAC 33:V.1907.F.1-4, must be inspected at least once each operating day.

F. The owner or operator must inspect cathodic protection systems, if present, according to, at a minimum, the following schedule to ensure that they are functioning properly:

1. the proper operation of the cathodic protection system must be confirmed within six months after initial installation and annually thereafter; and

2. all sources of impressed current must be inspected and/or tested, as appropriate, at least bimonthly (i.e., every other month).

G. The owner or operator must document in the operating record of the facility an inspection of those items in Subsections A-C and F of this Section.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:651 (November 1987), LR 14:790 (November 1988), amended by the Office of the Secretary, Legal Affairs Division, LR 34:995 (June 2008).

§1913. Response to Leaks or Spills and Disposition of Leaking or Unfit-for-Use Tank Systems

A tank system or secondary containment system from which there has been a leak or spill, or that is unfit for use, must be removed from service immediately, and the owner or operator must satisfy the following requirements.

A. – E.4. ...

F. **Certification of Major Repairs.** If the owner/operator has repaired a tank system in accordance with Subsection E of this Section and the repair has been extensive (e.g., installation of an internal liner; repair of a ruptured primary containment or secondary containment vessel), the tank system must not be returned to service unless the owner/operator has obtained a certification by an independent, qualified professional engineer in accordance with LAC 33:V.513 that the repaired system is capable of handling hazardous wastes without release for the intended life of the system. This certification must be placed in the operating record and maintained until closure of the facility.

[NOTE: The administrative authority may, on the basis of any information received that there is or has been a release of hazardous waste or hazardous constituents into the environment, issue an order requiring corrective action or such other response as is deemed necessary to protect human health or the environment.]

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 13:651 (November 1987), LR 16:614 (July 1990), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2475 (November 2000), LR 30:1673 (August 2004), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2457 (October 2005), LR 33:2107 (October 2007), LR 34:996 (June 2008).

Chapter 20. Integration with Maximum Achievable Control Technology (MACT) Standards

§2001. Options for Incinerators, Cement and Lightweight Aggregate Kilns, Solid Fuel and Liquid Fuel Boilers, and Hydrochloric Acid Production Furnaces to Minimize Emissions from Startup, Shutdown, and Malfunction Events

[NOTE: This Chapter is written in a special format to make it easier to understand the regulatory requirements. Like other department regulations, this establishes enforceable legal requirements. For this Chapter, “I” and “you” refer to the owner/operator.]

A. Facilities with Existing Permits

1. Revisions to Permit Conditions after Documenting Compliance with MACT. The owner or operator of a RCRA-permitted incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace may request that the administrative authority address permit conditions that minimize emissions from startup, shutdown, and malfunction events under any of the following options when requesting removal of permit conditions that are no longer applicable according to LAC 33:V.3105.B and LAC 33:V.3001.B.

a. – c.ii. ...

2. Addressing Permit Conditions upon Permit Reissuance. The owner or operator of an incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace that has conducted a comprehensive performance test and submitted to the administrator a Notification of Compliance documenting compliance with the standards of 40 CFR Part 63, Subpart EEE, as incorporated by reference at LAC 33:III.5122, may request in the application to reissue the permit for the combustion unit that the administrative authority control emissions from startup, shutdown, and malfunction events under any of the following options.

a. – c.ii. ...

B. Interim Status Facilities

1. Interim Status Operations. In compliance with LAC 33:V.4513 and LAC 33:V.3001.B, the owner or operator of an incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace that is operating under the interim status standards of LAC 33:V.Chapters 30 and 43 may control emissions of toxic compounds during startup, shutdown, and malfunction events under either of the following options after conducting a comprehensive performance test and submitting to the administrator a Notification of Compliance documenting compliance with the standards of 40 CFR Part 63, Subpart EEE, as incorporated by reference at LAC 33:III.5122.

a. – b. ...

2. Operations under a Subsequent RCRA Permit. When an owner or operator of an incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace that is operating under the interim status standards of LAC 33:V.Chapters 30 and 43 submits a RCRA permit application, the owner or operator may request that the administrative authority control emissions from startup, shutdown, and malfunction events under any of the options provided by Subparagraph A.2.a, b, or c of this Section.

C. New Units. Hazardous waste incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, and hydrochloric acid production furnace units that become subject to RCRA permit requirements after October 12, 2005, must control emissions of toxic compounds during startup, shutdown, and malfunction events under either of the following options:

1. comply with the requirements specified in 40 CFR 63.1206(c)(2); or

2. request to include in the RCRA permit, conditions that ensure emissions of toxic compounds are minimized from startup, shutdown, and malfunction events, including releases from emergency safety vents, based on review of information, including the source's startup, shutdown, and malfunction plan and design. The administrative authority will specify that these permit conditions apply only when the facility is operating under its startup, shutdown, and malfunction plan.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 29:320 (March 2003), amended by the Office of the Secretary, Legal Affairs Division, LR 34:624 (April 2008).

Chapter 21. Containers

§2109. Inspections

A. At least weekly, the owner or operator must inspect areas where containers are stored. The owner or operator must look for leaking containers and for deterioration of containers and the containment system caused by corrosion or other factors. Remedial action as described in LAC 33:V.1513 shall be taken.

B. – C. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), repromulgated LR 18:1256 (November 1992), amended by the Office of the Secretary, Legal Affairs Division, LR 34:996 (June 2008).

Chapter 22. Prohibitions on Land Disposal

Subchapter A. Land Disposal Restrictions

§2223. Applicability of Treatment Standards

A. – A.3. ...

B. For wastewaters, compliance with concentration level standards is based on maximums for any one day, except for D004-D011 wastes for which the previously promulgated treatment standards based on grab samples remain in effect. For all nonwastewaters, compliance with concentration level standards is based on grab sampling. For wastes covered by the waste extract standards, the Test Method 1311, the Toxicity Characteristic Leaching Procedure as described in *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, EPA Publication SW-846, as incorporated by reference in LAC 33:V.110, must be used to measure compliance. An exception is made for D004 and D008, for which either of two test methods may be used: Method 1311 or Method 1310B, the Extraction Procedure Toxicity Test. For wastes covered by a technology standard, the wastes may be land disposed after being treated using that specified technology or an equivalent treatment technology approved by the administrative authority under the procedures set forth in LAC 33:V.2227.

C. – I. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 15:378 (May 1989), amended LR 16:1057 (December 1990), LR 17:658 (July 1991), LR 21:266 (March 1995), LR 22:22 (January 1996), LR 22:819 (September 1996), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:668 (April 1998), LR 24:1726 (September 1998), LR 25:444 (March 1999), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:280 (February 2000), LR 30:1682 (August 2004), amended by the Office of the Secretary, Legal Affairs Division, LR 34:1014 (June 2008).

§2245. Generators' Waste Analysis, Recordkeeping, and Notice Requirements

A. Requirements for generators. A generator of hazardous waste must determine if the waste has to be treated before it can be land disposed. This is done by determining if the hazardous waste meets the treatment standards in LAC 33:V.2223, 2230, or 2236. This determination can be made concurrently with the hazardous waste determination required in LAC 33:V.1103 in either of two ways: testing the waste or using knowledge of the waste. If the generator tests the waste, testing would normally determine the total concentration of hazardous constituents, or the concentration of hazardous constituents in an extract of the waste obtained using Test Method 1311 in *Test Methods for Evaluating Solid Waste, Physical/Chemical*

Methods, EPA Publication SW-846, as incorporated by reference in LAC 33:V.110, depending on whether the treatment standard for the waste is expressed as a total concentration or concentration of hazardous constituent in the waste's extract. Alternatively, the generator must send the waste to a RCRA-permitted hazardous waste treatment facility, where the waste treatment facility must comply with the requirements of LAC 33:V.1519 and 2247.A. In addition, some hazardous wastes must be treated by particular treatment methods before they can be land disposed, and some soils are contaminated by such hazardous wastes. These treatment standards are also found in LAC 33:V.2223, and are described in detail in LAC 33:V.2299.Appendix, Table 3. These wastes, and soils contaminated with such wastes, do not need to be tested (however, if they are in a waste mixture, other wastes with concentration level treatment standards would have to be tested). If a generator determines they are managing a waste, or soil contaminated with a waste, that displays a hazardous characteristic of ignitability, corrosivity, reactivity, or toxicity, they must comply with the special requirements of LAC 33:V.2246 in addition to any applicable requirements in this Section.

B. If the waste or contaminated soil does not meet the treatment standards, or if the generator chooses not to make the determination of whether his waste must be treated, with the initial shipment of waste to each treatment or storage facility, the generator must send a one-time written notice to each treatment or storage facility receiving the waste and place a copy in the file. The notice must include the information in column "LAC 33:V.2245.B" of the Generator Paperwork Requirements Table in Subsection D of this Section. Alternatively, if the generator chooses not to make the determination of whether the waste must be treated, the notification must include the EPA hazardous waste numbers and manifest number of the first shipment and must state, "This hazardous waste may or may not be subject to the LDR treatment standards. The treatment facility must make the determination." No further notification is necessary until such time as the waste or facility changes, in which case a new notification must be sent and a copy placed in the generator's file.

B.1 – K. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 15:378 (May 1989), amended LR 16:1057 (December 1990), LR 17:658 (July 1991), LR 21:266, 267 (March 1995), LR 21:1334 (December 1995), LR 22:22 (January 1996), LR 22:820 (September 1996), LR 22:1130 (November 1996), LR 23:565 (May 1997), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:669 (April 1998), LR 24:1728 (September 1998), LR 25:447 (March 1999), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:281 (February 2000), LR 26:2478 (November 2000), LR 27:295 (March 2001), LR 27:711 (May 2001), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2459 (October 2005), LR 33:2109 (October 2007), LR 34:996 (June 2008).

§2246. Special Rules Regarding Wastes That Exhibit a Characteristic

A. The initial generator of a solid waste must determine each EPA Hazardous Waste Number (waste code) applicable to the waste in order to determine the applicable treatment standards under this Chapter. This determination may be made concurrently with the hazardous waste determination required in LAC 33:V.1103. For purposes of this Chapter, the waste will carry the waste code for any applicable listing under LAC 33:V.4901. In addition, where the waste exhibits a characteristic, the waste will carry one or more of the characteristic waste codes (LAC 33:V.4903), except when the treatment standard for the listed waste operates in lieu of the treatment standard for the characteristic waste, as specified in Subsection B of this Section. If the generator determines that his waste displays a hazardous characteristic (and is not D001 nonwastewaters treated by CMBST, RORGS, or POLYM of LAC 33:V.2299.Appendix, Table 3), the generator must determine the *underlying hazardous constituents* (as defined in LAC 33:V.2203.A), in the characteristic waste.

B. – C. ...

D. Wastes that exhibit a characteristic are also subject to the requirements of LAC 33:V.2245, except that once the waste is no longer hazardous, a one-time notification and certification must be placed in the generator's or treater's on-site files. The notification and certification must be updated if the process or operation generating the waste changes and/or if the solid waste disposal facility receiving the waste changes.

D.1. – F.2. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 16:1057 (December 1990), amended LR 17:658 (July 1991), LR 21:266 (March 1995), LR 22:22 (January 1996), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:669 (April 1998), LR 24:1730 (September 1998), LR 25:449 (March 1999), amended by the Office of Environmental Assessment, Environmental Planning

Division, LR 26:281 (February 2000), LR 26:2478 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2459 (October 2005), LR 33:2109 (October 2007), LR 34:997 (June 2008).

§2247. Owners or Operators of Treatment or Disposal Facilities: Testing, Waste Minimization, Recordkeeping and Notice Requirements

A. – D. ...

E. Where the wastes are recyclable materials used in a manner constituting disposal subject to the provisions in LAC 33:V.4139.B-D regarding treatment standards and prohibition levels, the owner or operator of a treatment facility (i.e., the recycler) must, for the initial shipment of waste, prepare a one-time certification described in Subsection C of this Section and a one-time notice that includes the information listed in Subsection B of this Section (except the manifest number). The certification and notification must be placed in the facility's on-site files. If the waste or the receiving facility changes, a new certification and notification must be prepared and placed in the on-site files. In addition, the recycling facility must also keep records of the name and location of each entity receiving the hazardous waste-derived product.

F. – H. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 15:378 (May 1989), amended LR 16:1057 (December 1990), LR 17:658 (July 1991), LR 21:266, 267 (March 1995), LR 21:1334 (December 1995), LR 22:22 (January 1996), LR 22:820 (September 1996), LR 23:566 (May 1997), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:670 (April 1998), LR 24:1730 (September 1998), LR 25:449 (March 1999), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:282 (February 2000), LR 26:2478 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2459 (October 2005), LR 32:607 (April 2006), LR 33:2110 (October 2007), LR 34:997 (June 2008).

§2299. Appendix—Tables 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12

Table 2. Treatment Standards for Hazardous Wastes					
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Non-Wastewaters
		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
* * *					
[See Prior Text in D001 – K048]					
K049	Slop oil emulsion solids from the petroleum refining industry.	Anthracene	120-12-7	0.059	3.4
		Benzene	71-43-2	0.14	10
		Benzo(a)pyrene	50-32-8	0.061	3.4
		bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
		Carbon disulfide	75-15-0	3.8	NA
		Chrysene	218-01-9	0.059	3.4
		2,4-Dimethylphenol	105-67-9	0.036	NA
		Ethylbenzene	100-41-4	0.057	10
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyrene	129-00-0	0.067	8.2
		Toluene	108-88-3	0.080	10
		Xylenes-mixed isomers (sum of o-, m-. and p-xylene concentrations)	1330-20-7	0.32	30
		Cyanides (Total) ⁷	57-12-5	1.2	590
		Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP
		Lead	7439-92-1	0.69	NA
		Nickel	7440-02-0	NA	11 mg/L TCLP
* * *					
[See Prior Text in K050]					
K051	API separator sludge from the petroleum refining industry.	Acenaphthene	83-32-9	0.059	NA
		Anthracene	120-12-7	0.059	3.4
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzene	71-43-2	0.14	10
		Benzo(a)pyrene	50-32-8	0.061	3.4
		bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
		Chrysene	218-01-9	0.059	3.4
		Di-n-butyl phthalate	105-67-9	0.057	28
		Ethylbenzene	100-41-4	0.057	10
		Fluorene	86-73-7	0.059	NA
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyrene	129-00-0	0.067	8.2

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Table 2. Treatment Standards for Hazardous Wastes					
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Non-Wastewaters
		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Toluene	108-88-3	0.08	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Cyanides (Total) ⁷	57-12-5	1.2	590
		Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP
		Lead	7439-92-1	0.69	NA
		Nickel	7440-02-0	NA	11 mg/L TCLP
* * *					
[See Prior Text in K052 – K087]					
K088	Spent potliners from primary aluminum reduction.	Acenaphthene	83-32-9	0.059	3.4
		Anthracene	120-12-7	0.059	3.4
		Benzo(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Benzo(b)fluoranthene	205-99-2	0.11	6.8
		Benzo(k)fluoranthene	207-08-9	0.11	6.8
		Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
		Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Fluoranthene	206-44-0	0.068	3.4
		Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4
		Phenanthrene	85-01-8	0.059	5.6
		Pyrene	129-00-0	0.067	8.2
		Antimony	7440-36-0	1.9	1.15 mg/L TCLP
		Arsenic	7440-38-2	1.4	26.1
		Barium	7440-39-3	1.2	21 mg/L TCLP
		Beryllium	7440-41-7	0.82	1.22 mg/L TCLP
		Cadmium	7440-43-9	0.69	0.11 mg/L TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP
		Lead	7439-92-1	0.69	0.75 mg/L TCLP
		Mercury	7439-97-6	0.15	0.025 mg/L TCLP
		Nickel	7440-02-0	3.98	11 mg/L TCLP
		Selenium	7782-49-2	0.82	5.7 mg/L TCLP
		Silver	7440-22-4	0.43	0.14 mg/L TCLP
		Cyanide (Total) ⁷	57-12-5	1.2	590
		Cyanide (Amenable) ⁷	57-12-5	0.86	30
		Fluoride	16984-48-8	35	NA
		* * *			
[See Prior Text in K093 – K110]					
K111	Product washwaters from the	2,4-Dinitrotoluene	121-14-2	0.32	140

Table 2. Treatment Standards for Hazardous Wastes					
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Non-Wastewaters
		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
	production of dinitrotoluene via nitration of toluene	2,6-Dinitrotoluene	606-20-2	0.55	28
* * *					
[See Prior Text in K112 – K151]					
K156	Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes. ¹⁰	Acetonitrile	75-05-8	5.6	1.8
		Acetophenone	98-86-2	0.010	9.7
		Aniline	62-53-3	0.81	14
		Benomyl	17804-35-2	0.056	1.4
		Benzene	71-43-2	0.14	10
		Carbaryl	63-25-2	0.006	0.14
		Carbenzadim	10605-21-7	0.056	1.4
		Carbofuran	1563-66-2	0.006	0.14
		Carbosulfan	55285-14-8	0.028	1.4
		Chlorobenzene	108-90-7	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		o-Dichlorobenzene	95-50-1	0.088	6.0
		Methomyl	16752-77-5	0.028	0.14
		Methylene chloride	75-09-2	0.089	30
		Methyl ethyl ketone	78-93-3	0.28	36
		Naphthalene	91-20-3	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyridine	110-86-1	0.014	16
		Toluene	108-88-3	0.080	10
		Triethylamine	121-44-8	0.081	1.5
* * *					
[See Prior Text in K157 – U133]					
U134	Hydrogen fluoride	Fluoride (measured in wastewaters only)	7664-39-3	35	ADGAS fb NEUTR; or NEUTR
* * *					
[See Prior Text in U135 – U136]					
U137	Indeno(1,2,3-cd)pyrene	Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4
* * *					
[See Prior Text in U138 – U411]					

Footnote 1 – Footnote 6 ...

⁷ Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010C or 9012B, found in *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, EPA Publication SW-846, as incorporated by reference in LAC 33:V.110, with a sample size

of 10 grams and a distillation time of one hour and 15 minutes.

Footnote 8 – Footnote 12
[Note: NA means Not Applicable.]

Table 3. – Table 6. ...

Table 7. Universal Treatment Standards			
Regulated Constituent–Common Name	CAS ¹ Number	Wastewater Standard Concentration ² in mg/L	Nonwastewater Standard Concentration ³ in mg/kg unless noted as "mg/L TCLP"
Organic Constituents			
* * *			
[See Prior Text in Acenaphthylene – Xylenes-mixed isomers (sum of o-, m-, and p- xylene concentrations)]			
Inorganic Constituents			
* * *			
[See Prior Text in Antimony – Zinc]			

Footnote 1. ...

²Concentration standards for wastewaters are expressed in mg/L and are based on analysis of composite samples.

Footnote 3. ...

⁴ Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010C or 9012B, found in *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, EPA Publication SW-846, as incorporated by reference in LAC 33:V.110, with a sample size of 10 grams and a distillation time of one hour and 15 minutes.

Footnote 5 – Footnote 8. ...

[NOTE: NA means Not Applicable.]

Table 8. – Table 10. ...

¹ A facility may certify compliance with these treatment standards according to provisions in LAC 33:V.2245 and 2247.

² Cyanide Wastewater Standards for F006 are based on analysis of composite samples.

³ These facilities must comply with 0.86 mg/L for amenable cyanides in the wastewater exiting the alkaline chlorination system. These facilities must also comply with LAC 33:V.2245.D for appropriate monitoring frequency consistent with the facilities' waste analysis plan.

⁴ Cyanide nonwastewaters are analyzed using SW-846 Method 9010C or 9012B, sample size 10 grams, distillation time, 1 hour and 15 minutes.

[NOTE: NA means Not Applicable.]

Table 11. – Table 12. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 16:1057 (December 1990), amended LR 17:658 (July 1991), LR 21:266 (March 1995), LR 22:22 (January 1996), LR 22:834 (September 1996), LR 23:566 (May 1997), LR 24:301 (February 1998), LR 24:670 (April 1998), LR 24:1732 (September 1998), LR 25:451 (March 1999), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:282 (February 2000), LR 27:295 (March 2001), LR 29:322 (March 2003), LR 30:1682 (August 2004), amended by the Office of the Secretary, Legal Affairs Division, LR 32:828 (May 2006), LR 32:1843 (October 2006), LR 34:625 (April 2008), LR 34:1014 (June 2008).

Chapter 23. Waste Piles

§2303. Design and Operating Requirements

A. – B.4. ...

C. The owner or operator of each new waste pile unit, each lateral expansion of a waste pile unit, and each replacement of an existing waste pile unit must install two or more liners and a leachate collection and removal system above and between such liners.

C.1. – L. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 20:1000 (September 1994), LR 21:266, 267 (March 1995), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2480 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 33:2111 (October 2007), LR 34:997 (June 2008).

Chapter 25. Landfills

§2515. Special Requirements for Bulk and Containerized Liquids

A. The placement of bulk or noncontainerized liquid hazardous waste or hazardous waste containing free liquids (whether or not sorbents have been added) in any landfill is prohibited.

B. Containers holding free liquids must not be placed in a landfill unless:

1. all free-standing liquids:
 - a. have been removed by decanting, or other methods;
 - b. have been mixed with sorbent or solidified so that the free-standing liquid is no longer present; or
 - c. have been otherwise eliminated; or
2. the container is very small such as an ampule; or
3. the container is designed to hold free liquids for use other than storage, such as a battery or capacitor; or

4. the container is a *lab pack* as defined in LAC 33:V.109 and is disposed of in accordance with LAC 33:V.2519.

C. To demonstrate the absence or presence of free liquids in either a containerized or a bulk waste, the following test must be used: Method 9095B (Paint Filter Liquids Test) as described in *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, EPA Publication SW-846, as incorporated by reference in LAC 33:V.110.

D. The placement of any liquid which is not a hazardous waste in a landfill is prohibited unless the owner or operator of such landfill demonstrates to the administrative authority, or the administrative authority determines, that:

1. the only reasonably available alternative to the placement in such landfill is placement in a landfill or unlined surface impoundment, whether or not permitted or operating under interim status, which contains, or may reasonably be anticipated to contain, hazardous waste; and

2. placement in such owner's or operator's landfill will not present a risk of contamination of any *underground source of drinking water* or *groundwater* (as these terms are defined in LAC 33:V.109).

E. Sorbents used to treat free liquids to be disposed of in landfills must be nonbiodegradable. Nonbiodegradable sorbents are: materials listed or described in this Subsection; materials that pass one of the tests in Paragraph E.2 of this Section; or materials that are determined by the administrative authority to be nonbiodegradable through the petition process in LAC 33:I.Chapter 9.

1. Nonbiodegradable Sorbents. The following materials are nonbiodegradable sorbents:

a. inorganic minerals, other inorganic materials, and elemental carbon, such as aluminosilicates, clays, smectites, Fuller's earth, bentonite, calcium bentonite, montmorillonite, calcined montmorillonite, kaolinite, micas (illite), vermiculites, zeolites; calcium carbonate (organic free limestone); oxides/hydroxides, alumina, lime, silica (sand), diatomaceous earth; perlite (volcanic glass); expanded volcanic rock; volcanic ash; cement kiln dust; fly ash; rice hull ash; activated charcoal/activated carbon; or

b. high molecular weight synthetic polymers, such as polyethylene, high density polyethylene (HDPE), polypropylene, polystyrene, polyurethane, polyacrylate, polynorborene, polyisobutylene, ground synthetic rubber, cross-linked allylstyrene and tertiary butyl copolymers. This does not include polymers derived from biological material or polymers specifically designed to be degradable; or

c. mixtures of these nonbiodegradable materials.

2. Tests for Nonbiodegradable Sorbents

a. The sorbent material is determined to be nonbiodegradable under ASTM Method G21-70 (1984a)-Standard Practice for Determining Resistance of Synthetic Polymer Materials to Fungi.

b. The sorbent material is determined to be nonbiodegradable under ASTM Method G22-76 (1984b)-Standard Practice for Determining Resistance of Plastics to Bacteria.

c. The sorbent material is determined to be nonbiodegradable under OECD test 301B: [CO₂ Evolution (Modified Sturm Test)].

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, in LR 10:200 (March 1984), amended LR 16:220 (March 1990), LR 20:1000 (September 1994), LR 21:266 (March 1995), LR 22:821 (September 1996), amended by the Office of the Secretary, LR 23:299 (March 1997), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:680 (April 1998), amended by the Office of the Secretary, Legal Affairs Division, LR 34:998 (June 2008).

Chapter 26. Corrective Action Management Units and Special Provisions for Cleanup

§2603. Corrective Action Management Units (CAMUs)

A. – A.3.b. ...

c. The placement of any liquid that is not a hazardous waste in a CAMU is prohibited unless such placement facilitates the remedy selected for the waste or a demonstration is made in accordance with LAC 33:V.2515.D.

d. The absence or presence of free liquids in either a containerized or a bulk waste must be determined in accordance with LAC 33:V.2515.B. Sorbents used to treat free liquids in CAMUs must meet the requirements of LAC 33:V.2515.D.

A.4. – E.4.d.v. ...

vi. Alternatives to TCLP. For metal-bearing wastes for which metals removal treatment is not used, the administrative authority may specify a leaching test other than the TCLP (Method 1311, EPA Publication SW-846, as incorporated by reference in LAC 33:V.110) to measure treatment effectiveness, provided the administrative authority determines that an alternative leach testing protocol is appropriate for use and that the alternative more accurately reflects conditions at the site that affect leaching.

E.4.e. – E.6.c.iv. ...

v. hydrogeological and other relevant environmental conditions at the facility that may influence the migration of any potential or actual releases; and

E.6.c.vi. – K. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:1192 (June 2002),

amended LR 29:323 (March 2003), amended by the Office of the Secretary, Legal Affairs Division, LR 34:627 (April 2008), LR 34:1014 (June 2008).

§2605. Staging Piles

[NOTE: This Section is written in a special format to make it easier to understand the regulatory requirements. Like other department and USEPA regulations, this establishes enforceable legal requirements. For this Section, *I* and *you* refer to the owner/operator.]

A. – C.1. ...

2. certification by an independent, qualified professional engineer for technical data, such as design drawings and specifications, and engineering studies, unless the administrative authority determines, based on information that you provide, that this certification is not necessary to ensure that a staging pile will protect human health and the environment; and

C.3. – M. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 26:285 (February 2000), amended LR 28:1196 (June 2002), amended by the Office of the Secretary, Legal Affairs Division, LR 34:998 (June 2008).

Chapter 27. Land Treatment

§2719. Closure and Post-Closure Care

A. – A.8. ...

B. For the purpose of complying with LAC 33:V.3517, when closure is completed, the owner or operator may submit to the Office of Environmental Services certification by an independent, qualified soil scientist, in lieu of an independent, qualified professional engineer, that the facility has been closed in accordance with the specifications in the approved closure plan.

C. – D.4. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 14:790 (November 1988), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2482 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2461 (October 2005), LR 33:2112 (October 2007), LR 34:999 (June 2008).

Chapter 28. Drip Pads

§2803. Assessment of Existing Drip Pad Integrity

A. For each *existing drip pad* as defined in LAC 33:V.2801, the owner or operator must evaluate the drip pad and determine that it meets all of the requirements of this Chapter, except the requirements for liners and leak detection systems of LAC 33:V.2805.C. No later than the effective date of this rule, the owner or operator must obtain

and keep on file at the facility a written assessment of the drip pad, reviewed and certified by an independent, qualified professional engineer that attests to the results of the evaluation. The assessment must be reviewed, updated and re-certified annually until all upgrades, repairs, or modifications necessary to achieve compliance with all of the standards of LAC 33:V.2805 are complete. The evaluation must document the extent to which the drip pad meets each of the design and operating standards of LAC 33:V.2805, except the standards for liners and leak detection systems, specified in LAC 33:V.2805.C, and must document the age of the drip pad to the extent possible, to document compliance with Subsection B of this Section.

B. The owner or operator must develop a written plan for upgrading, repairing, and modifying the drip pad to meet the requirements of LAC 33:V.2805.C and submit the plan to the Office of Environmental Services no later than two years before the date that all repairs, upgrades, and modifications will be complete. This written plan must describe all changes to be made to the drip pad in sufficient detail to document compliance with all the requirements of LAC 33:V.2805 and must document the age of the drip pad to the extent possible. The plan must be reviewed and certified by an independent, qualified professional engineer.

C. Upon completion of all upgrades, repairs, and modifications, the owner or operator must submit to the Office of Environmental Services the as-built drawings for the drip pad together with a certification by an independent, qualified professional engineer attesting that the drip pad conforms to the drawings.

D. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 18:1375 (December 1992), amended LR 21:944 (September 1995), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2482 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2462 (October 2005), LR 33:2112 (October 2007), LR 34:999 (June 2008).

§2805. Design and Operating Requirements

Owners and operators of drip pads must ensure that the pads are designed, installed, and operated in accordance with Subsection A or C of this Section.

A. – A.3. ...

4. have a hydraulic conductivity of less than or equal to 1×10^{-7} centimeters per second, e.g., existing concrete drip pads must be sealed, coated, or covered with a surface material with a hydraulic conductivity of less than or equal to 1×10^{-7} centimeters per second such that the entire surface on which drippage occurs or across which it may run is capable of containing such drippage and mixtures of drippage and precipitation, materials, or other wastes while being routed to an associated collection system. This surface material must be maintained free of cracks and gaps that

could adversely affect its hydraulic conductivity, and the material must be chemically compatible with the preservatives that contact the drip pad. The requirements of this provision apply only to existing drip pads and those drip pads for which the owner or operator elects to comply with LAC 33:V.2805 (except LAC 33:V.2805.C), 2807, and 2809 instead of LAC 33:V.2805 (except LAC 33:V.2805.A.4 and B), 2807, and 2809; and

A.5. – NOTE. ...

B. The owner or operator must obtain and keep on file at the facility a written assessment of the drip pad, reviewed and certified by an independent, qualified professional engineer that attests to the results of the evaluation. The assessment must be reviewed, updated, and recertified annually. The evaluation must document the extent to which the drip pad meets the design and operating standards of this Section, except for Subsection C of this Section.

C. If an owner or operator elects to comply with all of the requirements of LAC 33:V.2805 (except LAC 33:V.2805.A.4 and B), 2807 and 2809 instead of LAC 33:V.2805 (except LAC 33:V.2805.C), 2807, and 2809, the drip pad must have:

C.1. – G. ...

H. The drip pad must be evaluated to determine that it meets the requirements of Subsections A-G of this Section, and the owner or operator must obtain a statement from an independent, qualified professional engineer certifying that the drip pad design meets the requirements of this Section.

I. – P. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 18:1375 (December 1992), amended LR 21:266 (March 1995), LR 21:944 (September 1995), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2482 (November 2000), LR 30:1674 (August 2004), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2462 (October 2005), LR 33:2113 (October 2007), LR 34:627 (April 2008), LR 34:999 (June 2008).

§2807. Inspections

A. During construction or installation, liners and cover systems (e.g., membranes, sheets, or coatings) must be inspected for uniformity, damage, and imperfections (e.g., holes, cracks, thin spots, or foreign materials). Immediately after construction or installation, liners must be inspected and certified as meeting the requirements of LAC 33:V.2805 by an independent, qualified professional engineer. The certification must be maintained at the facility as part of the facility operating record. After installation, liners and covers must be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters.

B. – B.3.Note. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 18:1375 (December 1992), amended LR 21:944 (September 1995), amended by the Office of the Secretary, Legal Affairs Division, LR 34:999 (June 2008).

Chapter 29. Surface Impoundments

§2903. Design and Operating Requirements

[Comment: The permit applicant must submit detailed plans and specifications accompanied by an engineering report that must collectively include the information itemized and address the following in addition to the design and operating requirements:

(1) a description of the proposed maintenance and repair procedures;

(2) a description of the operating procedures that will ensure compliance with this Section; and

(3) a certification by a qualified engineer that states that the facilities comply with the applicable design requirements in this Section. The owner or operator of a new facility must submit a statement by a qualified engineer that he will provide such a certification upon completion of construction in accordance with the plans and specifications.]

A. – L. ...

1. The monofill contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand, and such wastes do not contain constituents which would render the wastes hazardous for reasons other than the toxicity characteristic in LAC 33:V.4903.E.

2. – 2.b. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 16:220 (March 1990), LR 17:658 (July 1991), LR 18:1256 (November 1992), LR 20:1000 (September 1994), LR 21:266, 267 (March 1995), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2482 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2462 (October 2005), LR 33:2113 (October 2007), LR 34:628 (April 2008).

Chapter 30. Hazardous Waste Burned in Boilers and Industrial Furnaces

§3001. Applicability

A. ...

B. Integration of the MACT Standards

1. Except as provided by Paragraphs B.2-4 of this Section, the standards of this Chapter do not apply to a new hazardous waste boiler or industrial furnace unit that

becomes subject to RCRA permit requirements after October 12, 2005, and no longer apply when an owner or operator of an existing hazardous waste boiler or industrial furnace unit demonstrates compliance with the maximum achievable control technology (MACT) requirements of 40 CFR Part 63, Subpart EEE, as incorporated by reference at LAC 33:III.5122, by conducting a comprehensive performance test and submitting to the administrative authority a notification of compliance under 40 CFR 63.1207(j) and 63.1210(d) documenting compliance with the requirements of 40 CFR Part 63, Subpart EEE. Nevertheless, even after this demonstration of compliance with the MACT standards, RCRA permit conditions that were based on the standards of this Chapter will continue to be in effect until they are removed from the permit or the permit is terminated or revoked, unless the permit expressly provides otherwise.

2. – 2.e. ...

3. The owner or operator of a boiler or hydrochloric acid production furnace that is an *area source* as defined in LAC 33:III.5103.A that elects not to comply with the emission standards of 40 CFR 63.1216-1218 for particulate matter, semivolatile and low volatile metals, and total chlorine, also remains subject to:

a. LAC 33:V.3011—Standards to Control Particulate Matter;

b. LAC 33:V.3013—Standards to Control Metals Emissions, except for mercury; and

c. LAC 33:V.3015—Standards to Control Hydrogen Chloride (HCl) and Chlorine Gas (Cl₂) Emissions.

4. The particulate matter standard of LAC 33:V.3011 remains in effect for boilers that elect to comply with the alternative to the particulate matter standard under 40 CFR 63.1216(e) and 63.1217(e).

C. – D.1.a.iv. ...

b. sample and analyze the hazardous waste and other feedstocks as necessary to comply with the requirements of this Section by using appropriate methods; and

D.1.c - D.3. ...

a. The hazardous wastes listed in 40 CFR 266, Appendices XI, XII, and XIII, as adopted and amended at LAC 33:V.3099.Appendices J, K, and L, and baghouse bags used to capture metallic dusts emitted by steel manufacturing are exempt from the requirements of Paragraph D.1 of this Section, provided that:

i. a waste listed in 40 CFR 266, Appendix XI, as adopted at LAC 33:V.3099.Appendix J, contains recoverable levels of lead; a waste listed in 40 CFR 266, Appendix XII, as adopted and amended at LAC 33:V.3099.Appendix K, contains recoverable levels of nickel or chromium; a waste listed in 40 CFR 266, Appendix XIII, as adopted and amended at LAC 33:V.3099.Appendix L, contains recoverable levels of mercury and less than 500 ppm of

LAC 33:V.3105, Table 1 organic constituents; and baghouse bags used to capture metallic dusts emitted by steel manufacturing contain recoverable levels of metal;

D.3.a.ii. – G.1.a.iii. ...

b. sample and analyze the hazardous waste as necessary to document that the waste contains economically significant amounts of the metals and that the treatment recovers economically significant amounts of precious metal; and

G.1.c. – H. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 18:1375 (December 1992), amended LR 21:266 (March 1995), LR 21:944 (September 1995), LR 22:821, 835 (September 1996), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 25:1466 (August 1999), LR 27:297 (March 2001), LR 27:712 (May 2001), LR 29:323 (March 2003), amended by the Office of the Secretary, Legal Affairs Division, LR 32:607 (April 2006), LR 34:628 (April 2008), LR 34:1014 (June 2008).

§3005. Permit Standards for Burners

A. – A.2.e. ...

f. releases from solid waste management units, LAC 33:V.3301 and 3322;

A.2.g. – A.2.i. ...

B. Hazardous Waste Analysis

1. The owner or operator must provide an analysis of the hazardous waste that quantifies the concentration of any constituent identified in LAC 33:V.3105, Table 1, that may reasonably be expected to be in the waste. Such constituents must be identified and quantified, if present, at levels detectable by using appropriate analytical procedures. The LAC 33:V.3105, Table 1 constituents excluded from this analysis must be identified and the basis for their exclusion explained. This analysis will be used to provide all information required by this Section and LAC 33:V.535 and 537 and to enable the permit writer to prescribe such permit conditions as are necessary to protect human health and the environment. Such analysis must be included as a portion of Part II of the permit application, or, for facilities operating under the interim status standards of LAC 33:V.3007, as a portion of the trial burn plan that may be submitted before Part II of the application under the provisions of LAC 33:V.537.D, as well as any other analysis required by the permit authority in preparing the permit. Owners and operators of boilers and industrial furnaces not operating under the interim status standards of LAC 33:V.3007 must provide the information required by LAC 33:V.535 and 537 to the greatest extent possible.

B.2. – E.5.a.iv. ...

v. such other operating requirements as are necessary to ensure that the particulate standard in LAC 33:V.3011.A is met.

5.b. – 6.b.ii.(a). ...

(b). the rolling average for the selected averaging period is defined as the arithmetic mean of one-hour block averages for the averaging period. A one-hour block average is the arithmetic mean of the one-minute averages recorded during the 60-minute period beginning at one minute after the beginning of the preceding clock hour; and

E.6.b.iii. – G.

H. Recordkeeping. The owner or operator must maintain in the operating record of the facility all information and data required by this Section for five years.

I. ...

[NOTE: Repealed.]

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 18:1375 (December 1992), amended LR 21:266 (March 1995), LR 21:944 (September 1995), LR 22:822 (September 1996), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2483 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2463 (October 2005), LR 33:2113 (October 2007), LR 34:628 (April 2008), LR 34:1015 (June 2008).

§3007. Interim Status Standards for Burners

A. – B.5.b. ...

i. The feed rate of each metal shall be limited at any time to 10 times the feed rate that would be allowed on an hourly rolling average basis.

B.5.b.ii. – C.1.g. ...

h. maximum flue gas temperature entering a particulate matter control device (unless complying with Tier I or Adjusted Tier I metals feed rate screening limits under LAC 33:V.3013.B or E and the total chlorine and chloride feed rate screening limits under LAC 33:V.3015.B.1 or E);

i. for systems using wet scrubbers, including wet ionizing scrubbers (unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under LAC 33:V.3013.B or E and the total chlorine and chloride feed rate screening limits under LAC 33:V.3015.B.1 or E):

1.i.i. – 4.d.iii. ...

(a). the feed rate of each metal shall be limited at any time to 10 times the feed rate that would be allowed on an hourly rolling average basis;

C.4.d.iii.(b). – C.8.d. ...

D. Periodic Recertifications. The owner or operator must conduct compliance testing and submit to the Office of Environmental Services a recertification of compliance

under provisions of Subsection C of this Section within five years from submitting the previous certification or recertification. If the owner or operator seeks to recertify compliance under new operating conditions, he/she must comply with the requirements of Paragraph C.8 of this Section.

E. – J.4. ...

K. Recordkeeping. The owner or operator must keep in the operating record of the facility all information and data required by this Section for five years.

L. ...

[NOTE: Repealed.]

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 18:1375 (December 1992), amended LR 21:266 (March 1995), LR 22:822 (September 1996), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1740 (September 1998), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2483 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2463 (October 2005), LR 33:2114 (October 2007), LR 34:629 (April 2008), LR 34:999 (June 2008).

§3013. Standards to Control Metals Emissions

A. General. The owner or operator must comply with the metals standards provided by Subsections B-F of this Section for each metal listed in Subsection B of this Section that is present in hazardous waste at detectable levels by using appropriate analytical procedures.

B. – I. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 18:1375 (December 1992), amended LR 21:266 (March 1995), LR 22:824 (September 1996), repromulgated LR 22:980 (October 1996), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1741 (September 1998), amended by the Office of the Secretary, Legal Affairs Division, LR 33:1626 (August 2007), LR 34:1015 (June 2008).

§3023. Standards for Direct Transfer

A. – E.3.a.iii. ...

b. The owner or operator must inspect cathodic protection systems, if used, to ensure that they are functioning properly according to the schedule provided in LAC 33:V.4440.E.

3.c. – 6. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 18:1375 (December 1992), amended LR 21:266 (March 1995), LR 22:826 (September 1996),

amended by the Office of Environmental Assessment, LR 31:1572 (July 2005), amended by the Office of the Secretary, Legal Affairs Division, LR 34:1000 (June 2008).

§3025. Regulation of Residues

A residue derived from the burning or processing of hazardous waste in a boiler or industrial furnace is not excluded from the definition of a hazardous waste under LAC 33:V.105.D.2.d, h, and i unless the device and the owner or operator meet the following requirements.

A. – B. ...

1. Comparison of Waste-Derived Residue with Normal Residue. The waste-derived residue must not contain LAC 33:V.4901.G, Table 6 constituents (toxic constituents) that could reasonably be attributable to the hazardous waste at concentrations significantly higher than in residue generated without burning or processing of hazardous waste, using the following procedure. Toxic compounds that could reasonably be attributable to burning or processing the hazardous waste (constituents of concern) include toxic constituents in the hazardous waste, and the organic compounds listed in 40 CFR 266, Appendix VIII, as incorporated by reference in LAC 33:V.3099.Appendix H, that may be generated as products of incomplete combustion. For polychlorinated dibenzo-p-dioxins and polychlorinated dibenzo-furans, analyses must be performed to determine specific congeners and homologues, and the results converted to 2,3,7,8-TCDD equivalent values using the procedure specified in LAC 33:V.3099.Appendix I;

a. – b. ...

2. Comparison of Waste-Derived Residue Concentrations with Health-Based Limits

a. Nonmetal Constituents. The concentration of each nonmetal toxic constituent of concern (specified in Paragraph B.1 of this Section) in the waste-derived residue must not exceed the health-based level specified in 40 CFR 266, Appendix VII, as incorporated by reference and amended in LAC 33:V.3099.Appendix G, or the level of detection, whichever is higher. If a health-based limit for a constituent of concern is not listed in 40 CFR 266, Appendix VII, as incorporated by reference and amended in LAC 33:V.3099.Appendix G, then a limit of 0.002 micrograms per kilogram or the level of detection (which must be determined by using appropriate analytical procedures), whichever is higher, shall be used. The levels specified in 40 CFR 266, Appendix VII (and the default level of 0.002 micrograms per kilogram or the level of detection for constituents as identified in 40 CFR 266, Appendix VII.Note 1, as incorporated by reference and amended in LAC 33:V.3099.Appendix G) are administratively stayed under the condition, for those constituents specified in Paragraph B.1 of this Section, that the owner or operator complies with alternative levels defined as the land disposal restriction limits specified in LAC 33:V.2299.Appendix, Table 2 for F039 nonwastewaters. In complying with those alternative levels, if an owner or operator is unable to detect a constituent

despite documenting use of best good-faith efforts, as defined by applicable agency guidance or standards, the owner or operator is deemed to be in compliance for that constituent. Until new guidance or standards are developed, the owner or operator may demonstrate such good-faith efforts by achieving a detection limit for the constituent that does not exceed an order of magnitude above the level provided by LAC 33:V.2299.Appendix, Table 2 for F039 nonwastewaters. In complying with the LAC 33:V.2299.Appendix, Table 2 for F039 nonwastewater levels for polychlorinated dibenzo-p-dioxins and polychlorinated dibenzo-furans, analyses must be performed for total hexachlorodibenzo-p-dioxins, total hexachlorodibenzofurans, total pentachlorodibenzo-p-dioxins, total pentachlorodibenzofurans, total tetrachlorodibenzo-p-dioxins, and total tetrachlorodibenzofurans;

[NOTE to Subparagraph B.2.a: The stay, under the condition that the owner or operator complies with alternative levels defined as the land disposal restriction limits specified in LAC 33:V.2299.Appendix, Table 2 for F039 nonwastewaters, remains in effect until further administrative action is taken and notice is published in the *Federal Register* or the *Louisiana Register*.]

B.2.b. – C.2.b. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 18:1375 (December 1992), amended LR 21:266 (March 1995), LR 22:826 (September 1996), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1107 (June 1998), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 27:300 (March 2001), repromulgated LR 27:513 (April 2001), amended by the Office of the Secretary, Legal Affairs Division, LR 34:1015 (June 2008).

§3099. Appendices—Appendix A, B, C, D, E, F, G, H, I, J, K, and L

Appendix A. Tier I and Tier II Feed Rate and Emissions Screening Limits For Metals

A. 40 CFR 266, Appendix I, July 1, 2007, is hereby incorporated by reference.

Appendix B. Tier I Feed Rate Screening Limits for Total Chlorine

A. 40 CFR 266, Appendix II, July 1, 2007, is hereby incorporated by reference.

Appendix C. Tier II Emission Rate Screening Limits for Free Chlorine and Hydrogen Chloride

A. 40 CFR 266, Appendix III, July 1, 2007, is hereby incorporated by reference.

Appendix D. Reference Air Concentrations

A. 40 CFR 266, Appendix IV, July 1, 2007, is hereby incorporated by reference, except that in regulations incorporated thereby, references to 40 CFR 261, Appendix VIII and 266, Appendix V shall mean LAC 33:V.3105, Table 1 and LAC 33:V.3099, Appendix E, respectively.

Appendix E. Risk-Specific Doses (10^{-5})

A. 40 CFR 266, Appendix V, July 1, 2007, is hereby incorporated by reference.

Appendix F. Stack Plume Rise [Estimated Plume Rise (in Meters) Based on Stack Exit Flow Rate and Gas Temperature]

A. 40 CFR 266, Appendix VI, July 1, 2007, is hereby incorporated by reference.

Appendix G. Health-Based Limits for Exclusion of Waste-Derived Residues

A. 40 CFR 266, Appendix VII, July 1, 2007, is hereby incorporated by reference, except that in regulations incorporated thereby, 40 CFR 261, Appendix VIII, 266.112(b)(1) and (b)(2)(i), and 268.43 shall mean LAC 33:V.3105, Table 1, 3025.B.1 and B.2.a, and LAC 33:V.2299, Appendix, Table 2, respectively.

Appendix H. Organic Compounds for Which Residues Must Be Analyzed

A. 40 CFR 266, Appendix VIII, July 1, 2007, is hereby incorporated by reference.

Appendix I. Methods Manual for Compliance with the BIF Regulations

A. 40 CFR 266, Appendix IX, July 1, 2007, is hereby incorporated by reference, except as follows.

A.1. – B. ...

Appendix J. Lead-Bearing Materials That May Be Processed in Exempt Lead Smelters

A. 40 CFR 266, Appendix XI, July 1, 2007, is hereby incorporated by reference.

Appendix K. Nickel or Chromium-Bearing Materials That May Be Processed in Exempt Nickel-Chromium Recovery Furnaces

A. 40 CFR 266, Appendix XII, July 1, 2007, is hereby incorporated by reference, except that the footnote should be deleted.

Appendix L. Mercury-Bearing Wastes That May Be Processed in Exempt Mercury Recovery Units

A. 40 CFR 266, Appendix XIII, July 1, 2007, is hereby incorporated by reference, except that in regulations incorporated thereby, 40 CFR 261, Appendix VIII shall mean LAC 33:V.3105, Table 1.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 22:827 (September 1996), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 27:300 (March 2001), LR 27:2231 (December 2001), LR 28:996 (May 2002), LR 29:700 (May 2003), LR 30:751 (April 2004), amended by the Office of Environmental Assessment, LR 31:919 (April 2005), amended by the Office of the Secretary, Legal Affairs Division, LR 32:603 (April 2006), LR 33:640 (April 2007), LR 34:866 (May 2008).

Chapter 31. Incinerators**§3105. Applicability**

A. ...

B. Integration of the MACT Standards

1. Except as provided by Paragraphs B.2-5 of this Section, the standards of this Subsection do not apply to a new hazardous waste incineration unit that becomes subject to RCRA permit requirements after October 12, 2005, and no longer apply when an owner or operator of an existing hazardous waste incineration unit demonstrates compliance with the maximum achievable control technology (MACT) requirements of 40 CFR Part 63, Subpart EEE, as incorporated by reference at LAC 33:III.5122, by conducting a comprehensive performance test and submitting to the administrative authority a notification of compliance under 40 CFR 63.1207(j) and 63.1210(d) documenting compliance with the requirements of 40 CFR Part 63, Subpart EEE. Nevertheless, even after this demonstration of compliance with the MACT standards, RCRA permit conditions that were based on the standards of LAC 33:V.Chapters 15, 17, 18, 19, 20, 21, 23, 24, 25, 26, 27, 28, 29, 31, 32, 33, 35, and 37 will continue to be in effect until they are removed from the permit or the permit is terminated or revoked, unless the permit expressly provides otherwise.

2. ...

3. The particulate matter standard of LAC 33:V.3111.A.4 remains in effect for incinerators that elect to comply with the alternative to the particulate matter standard of 40 CFR 63.1206(b)(14) and 63.1219(e).

B.4. – E. ...

Title 33, Part V

Table 1. Hazardous Constituents			
Common Name	Chemical Abstracts Name	Chemical Abstracts Number	Hazardous Waste Number
* * *			
[See Prior Text in A2213 – Allyl alcohol]			
Allyl chloride	1-Propene, 3-chloro	107-05-1	P005
* * *			
[See Prior Text in Aluminum phosphide – Benzenearsonic acid]			
Benzidine	[1,1'-Biphenyl]-4,4'-diamine	92-87-5	U021
* * *			
[See Prior Text in Benzo[b]fluoranthene – 1,1-Dichloroethylene]			
1,2-Dichloroethylene	Ethene, 1,2-dichloro-, (E)-	156-60-5	U079
* * *			
[See Prior Text in Dichloroethyl ether – Kepone]			
Lasiocarpine	2-Butenoic acid, 2-methyl-, 7-[[2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy]methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [1S-[1alpha(Z),7(2S*,3R*),7aalpha]]-	303-34-4	U143
* * *			
[See Prior Text in Lead – 2-Nitropropane]			
Nitrosamines, N.O.S. ¹		35576-91-1	
* * *			
[See Prior Text in N-Nitrosodi-n-butylamine – Ziram]			

Footnote 1. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 11:1139 (December 1985), LR 13:433 (August 1987), LR 14:424 (July 1988), LR 15:737 (September 1989), LR 16:399 (May 1990), LR 18:1256 (November 1992), LR 18:1375 (December 1992), LR 20:1000 (September 1994), LR 21:944 (September 1995), LR 22:835 (September 1996), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:318 (February 1998), LR 24:681 (April 1998), LR 24:1741 (September 1998), LR 25:479 (March 1999), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 27:301 (March 2001), LR 28:1004 (May 2002), LR 29:323 (March 2003), amended by the Office of the Secretary, Legal Affairs Division, LR 32:830 (May 2006), LR 34:629 (April 2008).

§3111. Performance Standards

A. – A.1, equation. ...

2. An incinerator burning hazardous waste F020, F021, F022, F023, F026, or F027 must achieve a destruction and removal efficiency (DRE) of 99.9999 percent for each principal organic hazardous constituent (POHC) designated (under LAC 33:V.3109) in its permit. This performance must be demonstrated on POHCs that are more difficult to incinerate than tetra-, penta-, and hexachlorodibenzo-p-dioxins and dibenzofurans. DRE is determined for each POHC from the equation in Paragraph A.1 of this Section.

A.3. – B. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 16:220 (March 1990), LR 20:1000 (September 1994), amended by the Office of the Secretary, Legal Affairs Division, LR 34:1000 (June 2008).

§3115. Incinerator Permits for New or Modified Facilities

A. – B.1.b. ...

c. an identification of any hazardous, organic constituents listed in LAC 33:V.3105, Table 1, which are present in the waste to be burned, except that the applicant need not analyze for constituents listed in LAC 33:V.3105, Table 1 that would reasonably not be expected to be found in the waste. The constituents excluded from analysis must be identified, and the basis for their exclusion stated. The waste analysis must rely on appropriate analytical techniques;

d. an approximate quantification of the hazardous constituents identified in the waste, within the precision produced by appropriate analytical methods;

B.2. – D. ...

E. When an owner or operator of a hazardous waste incineration unit becomes subject to RCRA permit requirements after October 12, 2005, or when an owner or operator of an existing hazardous waste incineration unit demonstrates compliance with the air emission standards and limitations in 40 CFR Part 63, Subpart EEE, as incorporated by reference at LAC 33:III.5122 (i.e., by conducting a comprehensive performance test and submitting a notification of compliance under 40 CFR 63.1207(j) and 63.1210(d) documenting compliance with all applicable requirements of 40 CFR Part 63, Subpart EEE), the requirements of this Section do not apply, except those provisions the administrative authority determines are necessary to ensure compliance with LAC 33:V.3117.A and C if the owner or operator elects to comply with LAC 33:V.2001.A.1.a to minimize emissions of toxic compounds from startup, shutdown, and malfunction events. Nevertheless, the administrative authority may apply the provisions of this Section, on a case-by-case basis, for purposes of information collection in accordance with LAC 33:V.303.Q-R and 311.E-F.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 16:614 (July 1990), LR 18:1256 (November 1992), LR 22:828, 835 (September 1996), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:683 (April 1998), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2484 (November 2000), LR 27:302 (March 2001), LR 29:324 (March 2003), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2464 (October 2005), LR 33:2115 (October 2007), LR 34:630 (April 2008), LR 34:1016 (June 2008).

§3119. Monitoring and Inspections

A. – C. ...

D. This monitoring and inspection data must be recorded and the records must be placed in the operating record as required by LAC 33:V.1529 and maintained in the operating record for five years.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), amended by the Office of the Secretary, Legal Affairs Division, LR 34:1000 (June 2008).

Chapter 33. Groundwater Protection

§3315. General Groundwater Monitoring Requirements

The owner or operator must comply with the following requirements for any ground water monitoring program developed to satisfy LAC 33:V.3317, 3319, or 3321.

A. The groundwater monitoring system must consist of a sufficient number of wells, installed at appropriate locations

and depths, to yield groundwater samples from the uppermost aquifer that fulfill the following requirements.

1. The samples must represent the quality of background groundwater that has not been affected by leakage from a regulated unit. A determination of background groundwater quality may include sampling of wells that are not hydraulically upgradient of the waste management area where:

A.1.a. – K. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 16:614 (July 1990), amended by the Office of the Secretary, Legal Affairs Division LR 34:630 (April 2008).

§3317. Detection Monitoring Program

An owner or operator required to establish a detection monitoring program under this Subpart must, at a minimum, discharge the following responsibilities.

A. – C. ...

D. The administrative authority will specify the frequencies for collecting samples and conducting statistical tests to determine whether there is statistically significant evidence of contamination for any parameter or hazardous constituent specified in the permit under Subsection A of this Section in accordance with LAC 33:V.3315.G.

E. – G.1. ...

2. Immediately sample the groundwater in all monitoring wells and determine whether constituents listed in LAC 33:V.3325, Table 4 are present, and if so, in what concentrations. However, the administrative authority, on a discretionary basis, may allow sampling for a site-specific subset of constituents from LAC 33:V.3325, Table 4 and other representative/related waste constituents.

3. For any LAC 33:V.3325 compounds found in the analysis pursuant to Paragraph G.2 of this Section, the owner or operator may resample within one month or at an alternative site-specific schedule approved by the administrative authority and repeat the analysis for those compounds detected. If the results of the second analysis confirm the initial results, then these constituents will form the basis for compliance monitoring. If the owner or operator does not resample for the compounds found pursuant to Paragraph G.2 of this Section, the hazardous constituents found during this initial LAC 33:V.3325, Table 4 analysis will form the basis for compliance monitoring.

G.4. – H. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:280 (April 1984), LR 10:496 (July 1984), LR 16:399 (May

1990), LR 16:614 (July 1990), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2485 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2464 (October 2005), LR 33:2115 (October 2007), LR 34:1000 (June 2008).

§3319. Compliance Monitoring Program

An owner or operator required to establish a compliance monitoring program under this Chapter must, at a minimum, discharge the following responsibilities.

A. – E. ...

F. The administrative authority will specify the frequencies for collecting samples and conducting statistical tests to determine statistically significant evidence of increased contamination in accordance with LAC 33:V.3315.G.

G. Annually, the owner or operator must determine whether additional hazardous constituents listed in LAC 33:V.3325, Table 4 that could possibly be present, but are not on the detection monitoring list in the permit, are actually present in the uppermost aquifer and, if so, at what concentration, pursuant to procedures in LAC 33:V.3317.F. To accomplish this, the owner or operator must consult with the administrative authority to determine, on a case-by-case basis, which sample collection event during the year will involve enhanced sampling, the number of monitoring wells at the compliance point to undergo enhanced sampling, the number of samples to be collected from each of these monitoring wells, and the specific constituents from LAC 33:V.3325, Table 4 for which these samples must be analyzed. If the enhanced sampling event indicates that LAC 33:V.3325, Table 4 constituents that are not already identified in the permit as monitoring constituents are present in the groundwater, the owner or operator may resample within one month or at an alternative site-specific schedule approved by the administrative authority, and repeat the analysis. If the second analysis confirms the presence of new constituents, the owner or operator must report the concentrations of these additional constituents to the administrative authority within seven days after the completion of the second analysis and add them to the monitoring list. If the owner or operator chooses not to resample, then he or she must report the concentrations of these additional constituents to the administrative authority within seven days after completion of the initial analysis and add them to the monitoring list.

H. – H.1. ...

2. submit to the Office of Environmental Services an application for a permit modification to establish a corrective action program meeting the requirements of LAC 33:V.3321 within 180 days, or within 90 days if an engineering feasibility study has been previously submitted to the administrative authority under LAC 33:V.3317.G.5. The application must at a minimum include the following information:

H.2.a. – J. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 16:399 (May 1990), LR 16:614 (July 1990), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2485 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2464 (October 2005), LR 33:2115 (October 2007), LR 34:630 (April 2008), LR 34:1000 (June 2008).

§3325. Groundwater Monitoring List

Table 4 lists groundwater monitoring constituents.

Table 4. Groundwater Monitoring List		
Common Name ¹	CAS RN ²	Chemical Abstracts Service Index Name ³
* * *		
[See prior text in Acenaphthene - Aniline]		
Anthracene	120-12-7	Anthracene
* * *		
[See prior text in Antimony - Endosulfan I]		
Endosulfan II	33213-65-9	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexa-chloro-1,5,5a,6,9, 9a-hexahydro-, 3-oxide, (3α,5αα,6β,9α,9αα)-
* * *		
[See prior text in Endosulfan sulfate - Parathion]		
Polychlorinated biphenyls; PCBs	See Note 4	1,1'-Biphenyl, chloro derivatives
Polychlorinated dibenzo-p-dioxins; PCDDs	See Note 5	Dibenzo[b,e][1,4]dioxin, chloro derivatives
Polychlorinated dibenzofurans; PCDFs	See Note 6	Dibenzofuran, chloro derivatives
* * *		
[See prior text in Pentachlorobenzene - Zinc]		

¹ Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals.

² Chemical Abstracts Service registry number. Where "Total" is entered, all species in the ground water that contain this element are included.

³ CAS index names are those used in the ninth Cumulative Index.

⁴ Polychlorinated biphenyls (CAS RN 1336-36-3); this category contains congener chemicals, including constituents of Aroclor-1016 (CAS RN 12674-11-2), Aroclor-1221 (CAS RN 11104-28-2), Aroclor-1232 (CAS RN 11141-16-5), Aroclor-1242 (CAS RN 53469-21-9), Aroclor-1248 (CAS RN 12672-29-6), Aroclor-1254 (CAS RN 11097-69-1), and Aroclor-1260 (CAS RN 11096-82-5).

⁵ This category contains congener chemicals, including tetrachlorodibenzo-p-dioxins (see also 2,3,7,8-TCDD), pentachlorodibenzo-p-dioxins, and hexachlorodibenzo-p-dioxins.

⁶ This category contains congener chemicals, including tetrachlorodibenzofurans, pentachlorodibenzofurans, and hexachlorodibenzofurans.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 16:399 (May 1990), amended LR 18:1256 (November 1992), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1742 (September 1998), amended by the Office of the Secretary, Legal Affairs Division, LR 32:1848 (October 2006), LR 34:1016 (June 2008).

Chapter 35. Closure and Post-Closure

Subchapter A. Closure Requirements

§3517. Certification of Closure

A. Within 60 days of completion of closure of each hazardous waste surface impoundment, waste pile, land treatment, and landfill unit, and within 60 days of the completion of final closure, the owner or operator must submit to the Office of Environmental Services, by registered mail, a certification that the hazardous waste management unit or facility, as applicable, has been closed in accordance with the specifications in the approved closure plan. The certification must be signed by the owner or operator and by an independent, qualified professional engineer. Documentation supporting the independent professional engineer's certification must be furnished to the administrative authority upon request until he releases the owner or operator from the financial assurance requirements for closure under LAC 33:V.3707.

B. Survey Plat. No later than the submission of the certification of closure of each hazardous waste disposal unit, the owner or operator must submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the Office of Environmental Services a survey plat indicating the location and dimensions of landfill cells or other hazardous waste disposal units with respect to permanently surveyed benchmarks. This plat must be prepared and certified by a professional land surveyor. The plat filed with the local zoning authority, or the authority with jurisdiction over local land use, must contain a note, prominently displayed, that states the owner's or operator's obligation to restrict disturbance of the hazardous waste disposal unit in accordance with the applicable regulations of this Chapter.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:433 (August 1987), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2487 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2466 (October 2005), LR 33:2117 (October 2007), LR 34:630 (April 2008), LR 34:1001 (June 2008).

Subchapter B. Post-Closure Requirements

§3523. Post-Closure Plan, Amendment of Plan

A. – B.4. ...

C. Until final closure of the facility, a copy of the approved post-closure plan must be furnished to the administrative authority upon request, including request by mail. After final closure has been certified, the person or office specified in Paragraph B.3 of this Section must keep

the approved post-closure plan during the remainder of the post-closure period.

D. – E. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:433 (August 1987), LR 14:791 (November 1988), LR 16:399 (May 1990), LR 16:614 (July 1990), LR 18:1256 (November 1992), amended by the Office of Waste Services, Hazardous Waste Division, LR 25:480 (March 1999), repromulgated LR 25:856 (May 1999), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2487 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2466 (October 2005), LR 33:2117 (October 2007), LR 34:631 (April 2008).

§3527. Certification of Completion of Post-Closure Care

A. No later than 60 days after completion of the established post-closure care period for each hazardous waste disposal unit, the owner or operator must submit to the Office of Environmental Services, by registered mail, a certification that the post-closure care period for the hazardous waste disposal unit was performed in accordance with the specifications in the approved post-closure plan. The certification must be signed by the owner or operator and an independent, qualified professional engineer. Documentation supporting the independent professional engineer's certification must be furnished to the administrative authority upon request until he releases the owner or operator from the financial assurance requirements for post-closure care under LAC 33:V.3711.I.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:433 (August 1987), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2488 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2467 (October 2005), LR 33:2118 (October 2007), LR 34:1001 (June 2008).

Chapter 37. Financial Requirements

Subchapter A. Closure Requirements

§3707. Financial Assurance for Closure

An owner or operator of each facility must establish financial assurance for closure of the facility. Under this Part, the owner or operator must choose from the options as specified in Subsections A-F of this Section, which choice the administrative authority must find acceptable based on the application and the circumstances.

A. – H. ...

I. Release of the Owner or Operator from the Requirements of this Section. Within 60 days after receiving

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certifications from the owner or operator and an independent, qualified professional engineer that final closure has been completed in accordance with the approved closure plan, and for facilities subject to LAC 33:V.3525, after receiving the certification required under LAC 33:V.3525.B.2, the administrative authority will notify the owner or operator in writing that he is no longer required by this Section to maintain financial assurance for final closure of the particular facility, unless the administrative authority has reason to believe that final closure has not been in accordance with the approved closure plan or that the owner or operator has failed to comply with the applicable requirements of LAC 33:V.3525. The administrative authority shall provide the owner or operator a detailed written statement of any such reason to believe that closure has not been in accordance with the approved closure plan or that the owner or operator has failed to comply with the applicable requirements of LAC 33:V.3525.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 13:433 (August 1987), LR 18:723 (July 1992), amended by the Office of Waste Services, Hazardous Waste Division, LR 23:1511 (November 1997), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2488 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2467 (October 2005), LR 33:2118 (October 2007), LR 34:1001 (June 2008).

Subchapter B. Post-Closure Requirements

§3711. Financial Assurance for Post-Closure Care

The owner or operator of a hazardous waste management unit subject to the requirements of LAC 33:V.3709 must establish financial assurance for post-closure care in accordance with the approved post-closure plan for the facility 60 days prior to the initial receipt of hazardous waste or the effective date of the regulation, whichever is later. Under this Section, the owner or operator must choose from the options as specified in Subsections A-F of this Section, which choice the administrative authority must find acceptable based on the application and the circumstances.

A. – H. ...

I. Release of the Owner or Operator from the Requirements of this Part. Within 60 days after receiving certifications from the owner or operator and an independent, qualified professional engineer that the post-closure care period has been completed for a hazardous waste disposal unit in accordance with the approved plan, the administrative authority will notify the owner or operator that he is no longer required to maintain financial assurance for post-closure care of that unit, unless the administrative authority has reason to believe that post-closure care has not been in accordance with the approved post-closure plan. The administrative authority shall provide the owner or operator

with a detailed written statement of any such reason to believe that post-closure care has not been in accordance with the approved post-closure plan.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 13:433 (August 1987), LR 14:791 (November 1988), LR 18:723 (July 1992), amended by the Office of Waste Services, Hazardous Waste Division, LR 23:1512 (November 1997), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2490 (November 2000), amended by the Office of Environmental Assessment, LR 31:1572 (July 2005), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2469 (October 2005), LR 33:2120 (October 2007), LR 34:1002 (June 2008).

Subchapter D. Insurance Requirements

§3715. Liability Requirements

A. – D. ...

E. Period of Coverage. Within 60 days after receiving certifications from the owner or operator and an independent, qualified professional engineer that final closure has been completed in accordance with the approved closure plan, the administrative authority will notify the owner or operator in writing that he is no longer required by this Section to maintain liability coverage for that facility, unless the administrative authority has reason to believe that closure has not been in accordance with the approved closure plan.

F. – K. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 11:686 (July 1985), LR 13:433 (August 1987), LR 13:651 (November 1987), LR 16:399 (May 1990), LR 18:723 (July 1992), repromulgated LR 19:486 (April 1993), amended by the Office of Waste Services, Hazardous Waste Division, LR 23:1513 (November 1997), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2492 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2471 (October 2005), LR 33:2122 (October 2007), LR 34:1002 (June 2008).

Subchapter F. Financial and Insurance Instruments

§3719. Wording of the Instruments

A. – G.PART A.ALTERNATIVE II, 10. ...

[Fill in Part B if you are using the financial test to demonstrate assurance of both liability coverage and closure or post-closure care.]

PART B. CLOSURE OR POST-CLOSURE CARE AND LIABILITY COVERAGE

[Fill in Alternative I if the first criteria of LAC 33:V.3707.F.1, 3711.F.1, and 3715.F.1, or if the first criteria of LAC 33:V.4403.E.1 or 4407.E.1 and 4411.F.1, are used. Fill in Alternative II if the second criteria of LAC 33:V.3707.F.1, 3711.F.1, and 3715.F.1, or if the second criteria of LAC 33:V.4403.E.1 or 4407.E.1 and 4411.F.1, are used.]

ALTERNATIVE I

* * *

[See Prior Text in 1 – 9]

*10. The sum of net income plus depreciation, depletion, and amortization: \$ _____

* * *

[See Prior Text in 11 – 19]

G.PART B.ALTERNATIVE II. – M.1.Section 8.b. ...

c. to register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

M.1.Section 8.d. – N.1.Section 3.e.ii. ...

iii. property loaned by [insert Grantor];

N.1.Section 3.e.iv. – N.2.Certification. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 11:686 (July 1985), LR 13:433 (August 1987), LR 13:651 (November 1987), LR 16:47 (January 1990), LR 18:723 (July 1992), LR 21:266 (March 1995), LR 22:835 (September 1996), amended by the Office of Waste Services, Hazardous Waste Division, LR 23:1514 (November 1997), repromulgated LR 23:1684 (December 1997), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2493 (November 2000), amended by the Office of Environmental Assessment, LR 30:2023 (September 2004), LR 31:1573 (July 2005), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2472 (October 2005), LR 33:1626 (August 2007), LR 33:2123 (October 2007), LR 34:631 (April 2008).

Chapter 38. Universal Wastes

Subchapter A. General

§3807. Applicability—Mercury-Containing Equipment

A. – B. ...

1. mercury-containing equipment that is not yet waste under LAC 33:V.Chapter 49 (Subsection C of this Section describes when mercury-containing equipment becomes waste.);

2. mercury-containing equipment that is not hazardous waste. Mercury-containing equipment is a hazardous waste if it exhibits one or more of the characteristics identified in LAC 33:V.4903; and

3. equipment and devices from which the mercury-containing components have been removed.

C. – C.2. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:569 (May 1997), amended by the Office of the Secretary, Legal Affairs Division, LR 31:3117 (December 2005), LR 34:1017 (June 2008).

Subchapter B. Standards for Small Quantity Handlers of Universal Waste

§3823. Labeling/Marking

A. – A.3.b. ...

4. Universal waste mercury-containing equipment (i.e., each device), or a container in which the mercury-containing equipment is contained, shall be labeled or marked clearly with any of the following phrases: "Universal Waste—Mercury-Containing Equipment," or "Waste Mercury-Containing Equipment," or "Used Mercury-Containing Equipment."

5. – 8. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:572 (May 1997), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1761 (September 1998), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 27:303 (March 2001), amended by the Office of the Secretary, Legal Affairs Division, LR 31:3119 (December 2005), LR 34:1017 (June 2008).

Subchapter C. Standards for Large Quantity Handlers of Universal Waste

§3845. Labeling/Marking

A. – A.3.b. ...

4. Universal waste mercury-containing equipment (i.e., each device), or a container in which the mercury-containing equipment is contained, shall be labeled or marked clearly with one of the following phrases: "Universal Waste—Mercury-Containing Equipment," or "Waste Mercury-Containing Equipment," or "Used Mercury-Containing Equipment."

5. – 8. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 23:575 (May 1997), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1761 (September 1998), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 27:303 (March 2001), amended by the Office of the Secretary, Legal Affairs Division, LR 31:3121 (December 2005), LR 34:1017 (June 2008).

Chapter 40. Used Oil

§4001. Definitions

Terms that are defined in LAC 33:V.109 have the same meanings when used in this Chapter.

* * *

Petroleum Refining Facility—an establishment primarily engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, and lubricants, through fractionation, straight distillation of crude oil, redistillation of unfinished petroleum derivatives, cracking, or other processes (i.e., facilities classified as SIC 2911).

* * *

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995), amended LR 22:836 (September 1996),), amended by the Office of the Secretary, Legal Affairs Division, LR 34:631 (April 2008).

Subchapter A. Materials Regulated as Used Oil

§4003. Applicability

This Section identifies those materials that are subject to regulation as used oil under this Chapter. This Section also identifies some materials that are not subject to regulation as used oil under this Chapter and indicates whether these materials may be subject to regulation as hazardous waste under this Subpart.

A. ...

B. Mixtures of Used Oil and Hazardous Waste

1. Listed Hazardous Waste

a. Mixtures of used oil and hazardous waste that are listed in LAC 33:V.4901 are subject to regulation as hazardous waste under LAC 33:V.Subpart 1, rather than as used oil under LAC 33:V.Chapter 40.

b. **Rebuttable Presumption for Used Oil.** Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in LAC 33:V.4901. Persons may rebut this presumption by demonstrating that the used oil does not contain hazardous waste (e.g., by showing that the used oil does not contain significant

concentrations of halogenated hazardous constituents listed in LAC 33:V.3105, Table 1).

B.1.b.i. – B.1.b.ii. ...

2. **Characteristic Hazardous Waste.** Mixtures of used oil and hazardous waste that solely exhibit one or more of the hazardous waste characteristics identified in LAC 33:V.4903 and mixtures of used oil and hazardous waste that are listed in LAC 33:V.4901 solely because they exhibit one or more of the characteristics of hazardous waste identified in LAC 33:V.4903 are subject to:

B.2.a. - I. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995), amended LR 22:828, 836 (September 1996), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1108 (June 1998), LR 25:481 (March 1999), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 27:713 (May 2001), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2540 (October 2005), LR 34:631 (April 2008), LR 34:1017 (June 2008).

§4005. Used Oil Specifications

A. Used oil burned for energy recovery and any fuel produced from used oil by processing, blending, or other treatment is subject to regulation under this Chapter unless it is shown not to exceed any of the allowable levels of the constituents and properties shown in Table 1 of this Section. Once used oil that is to be burned for energy recovery has been shown not to exceed any allowable levels and the person making that showing complies with LAC 33:V.4081, 4083, and 4085.B, the used oil is no longer subject to this Chapter.

Table 1 Used Oil Not Exceeding Any Allowable Level Shown Below is Not Subject to LAC 33:V.Chapter 40 When Burned for Energy Recovery ¹	
Constituent/Property	Allowable Level
Arsenic	5 ppm maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Flash Point	100°F minimum
Total Halogens	4,000 ppm maximum ²

¹The allowable level does not apply to mixtures of used oil and hazardous waste that continue to be regulated as hazardous waste (see LAC 33:V.4003.B).

²Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under LAC 33:V.4003.B.1. Such used oil is subject to LAC 33:V.Chapter 30 rather than LAC 33:V.Chapter 40 when burned for energy recovery unless the presumption of mixing can be successfully rebutted.

[Note: Applicable standards for the burning of used oil containing PCBs are imposed by 40 CFR 761.20(e).]

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995), amended by the Office of the Secretary, Legal Affairs Division, LR 34:632 (April 2008).

Subchapter D. Standards for Used Oil Transporter and Transfer Facilities

§4033. Rebuttable Presumption for Used Oil

A. – B.2. ...

C. If the used oil contains greater than or equal to 1,000 ppm total halogens, it is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste, which is listed in LAC 33:V.4901. The owner or operator may rebut the presumption by demonstrating that the used oil does not contain hazardous waste (e.g., by showing that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in LAC 33:V.3105, Table 1).

C.1. – D. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995), amended LR 22:828 (September 1996), amended by the Office of the Secretary, Legal Affairs Division, LR 34:1017 (June 2008).

Subchapter E. Standards for Used Oil Processors and Re-Refiners

§4045. General Facility Standards

A. – B.6.a.ii. ...

b. Whenever there is a release, fire, or explosion, the emergency coordinator must immediately identify the character, exact source, amount, and the areal extent of any released materials. He may do this by observation, review of facility records or manifests, and, if necessary, chemical analyses.

c. Concurrently, the emergency coordinator must assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated or the effects of any hazardous surface water run-offs from water or chemical agents used to control fire and heat-induced explosions).

d. – i.vii. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2497 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2473 (October 2005), LR 33:2125 (October 2007), LR 34:632 (April 2008).

§4047. Rebuttable Presumption for Used Oil

A. – B.2. ...

C. If the used oil contains greater than or equal to 1,000 ppm total halogens, it is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste, which is listed in LAC 33:V.4901. The owner or operator may rebut the presumption by demonstrating that the used oil does not contain hazardous waste (e.g., by showing that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in LAC 33:V.3105, Table 1).

1. – 2. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995), amended LR 22:828 (September 1996), amended by the Office of the Secretary, Legal Affairs Division, LR 34:1017 (June 2008).

Subchapter F. Standards for Used Oil Burners That Burn Off-Specification Used Oil for Energy Recovery

§4067. Rebuttable Presumption for Used Oil

A. – B.2. ...

3. if the used oil has been received from a processor/re-refiner subject to regulation under LAC 33:V.Chapter 40.Subchapter E, using information provided by the processor/re-refiner.

C. If the used oil contains greater than or equal to 1,000 ppm total halogens, it is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste, which is listed in LAC 33:V.4901. The owner or operator may rebut the presumption by demonstrating that the used oil does not contain hazardous waste (e.g., by showing that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in LAC 33:V.3105, Table 1).

C.1. – D. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995), amended LR 22:828 (September 1996), amended by the Office of the Secretary, Legal Affairs Division, LR 34:632 (April 2008), LR 34:1018 (June 2008).

Chapter 42. Conditional Exemption for Low-Level Mixed Waste Storage, Treatment, Transportation, and Disposal

Chapter 43. Interim Status

§4301. Purpose and Applicability

A. – C.4. ...

5. the owner and operator of a facility managing recyclable materials described in LAC 33:V.4105.A.1-3, except to the extent they are referred to in LAC 33:V.Chapter 40 or LAC 33:V.4139, 4141, 4143, or 4145;

C.6. – I. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 13:84 (February 1987), LR 16:220 (March 1990), LR 17:362 (April 1991), LR 18:1256 (November 1992), LR 20:1000 (September 1994), LR 21:266 (March 1995), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1743 (September 1998), LR 25:482 (March 1999), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 25:1466 (August 1999), LR 26:2498 (November 2000), LR 27:713 (May 2001), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2474 (October 2005), LR 31:3121 (December 2005), LR 32:612 (April 2006), LR 33:2126 (October 2007), LR 34:632 (April 2008).

Subchapter D. Manifest System, Recordkeeping, and Reporting

§4357. Operating Record

A. ...

B. Records of each hazardous waste received, treated, stored, or disposed of at the facility must be recorded, as they become available, and maintained in the operating record for three years, unless otherwise specified in Paragraphs B.1-17 of this Section. These records shall include the following information:

1. a description and the quantity of each hazardous waste received, and the method(s) and date(s) of its treatment, storage, or disposal at the facility as required by LAC 33:V.4999.Appendix F. This information must be maintained in the operating record until closure of the facility;

2. the location of each hazardous waste within the facility and the quantity at each location. For disposal facilities, the location and quantity of each hazardous waste must be recorded on a map or diagram of each cell or disposal area. For all facilities, this information must include cross-references to manifest document numbers, if the waste was accompanied by a manifest. This information must be

maintained in the operating record until closure of the facility;

3. the estimated or manifest-reported weight, or volume and density, where applicable, in one of the units of measure specified in Table 1 of this Section:

Table 1. Units For Reporting	
Unit of Measure	Code ¹
* * *	
[See Prior Text in Gallons – British thermal units per Hour]	
Pounds	P
Short tons	T
Kilograms	K
Tons	M
¹ Single digit symbols are used here for data processing purposes.	

4. the method(s) (by handling code(s) as specified in Table 2 of this Section) and date(s) of treatment, storage, or disposal:

Table 2. Handling Codes for Treatment, Storage, and Disposal Methods	
Enter the handling code(s) listed below that most closely represents the technique(s) used at the facility to treat, store, or dispose of each quantity of hazardous waste received.	
Storage	
* * *	
[See Prior Text in S01 – S99]	
Treatment	
Thermal Treatment	
* * *	
[See Prior Text in T06 – T74]	
T75	Trickling filter
* * *	
[See Prior Text in T76 – T94]	
Disposal	
* * *	
[See Prior Text in D79 – D99]	
Miscellaneous	
* * *	
[See Prior Text in X01 – X04]	
X99	Other (specify)

5. ...

6. summary reports and details of all incidents that require implementing the contingency plan as specified in LAC 33:V.1513.F.9;

7. ...

8. monitoring, testing, or analytical data, and corrective action where required by LAC 33:V.4320, 4367, 4375, 4433, 4437, 4440, 4449, 4451, 4455, 4470, 4472, 4474, 4483, 4485, 4489.D.1, 4497, 4498, 4499, 4501, 4502, 4519, 4529, 4557, 4559, 4587, 4589, 4725, 4727, 4729, 4731, 4733, 4735, 4737, and 4739. Maintain this information in the operating record for three years, except for records and results pertaining to groundwater monitoring and cleanup, and response action plans for surface impoundments, waste piles, and landfills, which must be

maintained in the operating record until closure of the facility;

[Comment: As required by LAC 33:V.4375, monitoring data at disposal facilities must be kept throughout the post-closure period.]

9. all closure cost estimates under LAC 33:V.4401 and, for disposal facilities, all post-closure cost estimates under LAC 33:V.4405. This information must be maintained in the operating record until closure of the facility;

10. records of the quantities (and date of placement) for each shipment of hazardous waste placed in land disposal units under an extension to the effective date of any land disposal prohibition granted in accordance with LAC 33:V.2239, monitoring data required in accordance with an exemption under LAC 33:V.2241 or 2271 or a certification under LAC 33:V.2235, and the applicable notice required of a generator under LAC 33:V.2245. All of this information must be maintained in the operating record until closure of the facility;

11. – 15. ...

16. for an on-site storage facility, the information contained in the notice (except the manifest number) and the certification and demonstration, if applicable, required by the generator or the owner or operator of a treatment facility under LAC 33:V.2245 or 2247;

17. monitoring, testing, or analytical data and corrective action data where required by LAC 33:V.4367, 4373.F, and 4373.I, and the certification as required by LAC 33:V.4441.F. This information must be maintained in the operating record until closure of the facility.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 15:378 (May 1989), LR 16:220 (March 1990), LR 17:658 (July 1991), LR 18:723 (July 1992), LR 20:1000 (September 1994), LR 21:266 (March 1995), LR 22:837 (September 1996), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1744 (September 1998), LR 25:484 (March 1999), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 25:1803 (October 1999), amended by the Office of the Secretary, Legal Affairs Division, LR 33:1626 (August 2007), LR 34:633 (April 2008), LR 34:1018 (June 2008).

§4365. Additional Reports

A. ...

1. releases, fires, and explosions as specified in LAC 33:V.1513.F.9;

2. – 4. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR

10:496 (July 1984), LR 17:658 (July 1991), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1744 (September 1998), amended by the Office of the Secretary, Legal Affairs Division, LR 34:1002 (June 2008).

Subchapter E. Groundwater Monitoring

§4367. Applicability

Facilities that have interim status must comply with this Subchapter in lieu of LAC 33:V.Chapter 33.

A. – B. ...

C. If an owner or operator assumes (or knows) that groundwater monitoring of indicator parameters, in accordance with LAC 33:V.4369 and 4371, would show statistically significant increases (or decreases in the case of pH) when evaluated under LAC 33:V.4373.B, he may install, operate, and maintain an alternate groundwater monitoring system (other than the one described in LAC 33:V.4371 and 4373). If the owner or operator decides to use an alternate groundwater monitoring system he must:

1. within one year after the effective date of these regulations, develop a specific plan, certified by a qualified geologist or geotechnical engineer, that satisfies the requirements of LAC 33:V.4373.G, for an alternate groundwater monitoring system. This plan is to be placed in the facility's operating record and maintained until closure of the facility;

2. not later than one year after the effective date of these regulations, initiate the determinations specified in LAC 33:V.4373.H;

3. prepare a report in accordance with LAC 33:V.4373.I and place it in the facility's operating record and maintain until closure of the facility;

C.4. – E.2. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended by the Office of Waste Services, Hazardous Waste Division, LR 25:484 (March 1999), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2499 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 33:2126 (October 2007), LR 34:633 (April 2008), LR 34:1002 (June 2008).

§4373. Preparation, Evaluation, and Response

A. – E. ...

F. Within 15 days after the notification required in Subsection E of this Section, the owner or operator must develop a specific plan, based on the outline required in Subsection A of this Section and certified by a qualified geologist or geotechnical engineer, for a groundwater quality assessment program at the facility. This plan must be placed

in the facility operating record and be maintained until closure of the facility.

G. – H.2. ...

I. The owner or operator must make his first determination required in Subsection H of this Section as soon as technically feasible and prepare a report containing an assessment of the groundwater quality. This report must be placed in the facility operating record and be maintained until closure of the facility.

J. – M. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 14:791 (November 1988), LR 18:723 (July 1992), amended by the Office of the Secretary, LR 24:2248 (December 1998), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2499 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 33:2126 (October 2007), LR 34:1003 (June 2008).

Subchapter F. Closure and Post-Closure

§4379. Closure Performance Standard

A. – A.2. ...

3. complies with the closure requirements of these regulations including, but not limited to, LAC 33:V.4442, 4457, 4475, 4489, 4501, 4521, 4531, 4543, and 4705.

B. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:433 (August 1987), LR 15:181 (March 1989), LR 21:266 (March 1995), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1744 (September 1998), amended by the Office of the Secretary, LR 24:2248 (December 1998), amended by the Office of the Secretary, Legal Affairs Division, LR 34:633 (April 2008).

§4381. Closure Plan; Amendment of Plan

A. – B.4. ...

5. a detailed description of other activities necessary during the partial and final closure periods to ensure that all partial closures and final closure satisfy the closure performance standards, including, but not limited to, groundwater monitoring, leachate collection, and run-on and run-off control; and

B.6. – E. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 13:433 (August 1987), LR 16:614 (July 1990), LR 17:362 (April 1991), LR 17:478 (May 1991), LR 18:723 (July 1992), LR 18:1375 (December 1992), LR 21:266 (March 1995), amended by the Office of Waste Services, Hazardous Waste Division, LR 25:485 (March 1999), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2500 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2475 (October 2005), LR 33:2127 (October 2007), LR 34:633 (April 2008).

§4387. Certification of Closure

A. Within 60 days of completion of closure of each hazardous waste surface impoundment, waste pile, land treatment, and landfill unit, and within 60 days of completion of final closure, the owner or operator must submit to the Office of Environmental Services, by registered mail, a certification that the hazardous waste management unit or facility, as applicable, has been closed in accordance with the specifications in the approved closure plan. The certification must be signed by the owner or operator and by an independent, qualified professional engineer. Documentation supporting the independent professional engineer's certification must be furnished to the administrative authority upon request until he releases the owner or operator from the financial assurance requirements for closure under LAC 33:V.4403.H.

B. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:433 (August 1987), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2501 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2475 (October 2005), LR 33:2128 (October 2007), LR 34:1003 (June 2008).

§4395. Certification of Completion of Post-Closure Care

A. No later than 60 days after completion of the established post-closure care period for each hazardous waste disposal unit, the owner or operator must submit to the Office of Environmental Services, by registered mail, a certification that the post-closure care period for the hazardous waste disposal unit was performed in accordance with the specifications in the approved post-closure plan. The certification must be signed by the owner or operator and an independent, qualified professional engineer. Documentation supporting the independent professional engineer's certification must be furnished to the administrative authority upon request until he releases the owner or operator from the financial assurance requirements for post-closure care under LAC 33:V.4407.H.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:433 (August 1987), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2502 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2477 (October 2005), LR 33:2129 (October 2007), LR 34:1003 (June 2008).

Subchapter G. Financial Requirements

§4401. Cost Estimate for Closure

A. The owner or operator must have a detailed written estimate, in current dollars, of the cost of closing the facility in accordance with the requirements in LAC 33:V.4379, 4381, 4383, 4385, and 4387 and applicable closure requirements in LAC 33:V.4442, 4457, 4475, 4489, 4501, 4521, 4531, 4543, and 4705.

A.1. – D. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:433 (August 1987), LR 17:478 (May 1991), LR 18:723 (July 1992), LR 21:266 (March 1995), amended by the Office of the Secretary, Legal Affairs Division, LR 34:634 (April 2008).

Subchapter G. Financial Requirements

§4403. Financial Assurance for Closure

By the effective date of these regulations an owner or operator of each facility must establish financial assurance for closure of the facility. He must choose from the options as specified in Subsections A-E of this Section.

A. – G. ...

H. Release of the Owner or Operator from the Requirements of this Section. Within 60 days after receiving certifications from the owner or operator and an independent, qualified professional engineer that closure has been completed in accordance with the approved closure plan and after receiving the certification required under LAC 33:V.4393.B.2 for facilities subject to LAC 33:V.4393, the administrative authority will notify the owner or operator in writing that he is no longer required by this Section to maintain financial assurance for final closure of the particular facility, unless the administrative authority has reason to believe that the final closure has not been in accordance with the approved closure plan or that the owner or operator has failed to comply with the applicable requirements of LAC 33:V.4393. The administrative authority shall provide the owner or operator a detailed written statement of any such reason to believe that closure has not been in accordance with the approved closure plan or that the owner or operator has failed to comply with the applicable requirements of LAC 33:V.4393.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:433 (August 1987), LR 14:791 (November 1988), LR 16:219 (March 1990), LR 18:723 (July 1992), amended by the Office of Waste Services, Hazardous Waste Division, LR 23:1520 (November 1997), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2502 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2477 (October 2005), LR 33:2129 (October 2007), LR 34:1003 (June 2008).

§4407. Financial Assurance for Post-Closure Care

An owner or operator of each hazardous waste disposal unit must establish financial assurance for post-closure care of the facility. He must choose from the options as specified in Subsections A-E of this Section.

A. – G. ...

H. Release of the Owner or Operator from the Requirements of this Section. Within 60 days after receiving certifications from the owner or operator and an independent, qualified professional engineer that the post-closure care period has been completed in accordance with the approved post-closure plan, the administrative authority will notify the owner or operator in writing that he is no longer required by this Section to maintain financial assurance for post-closure care of that unit, unless the administrative authority has reason to believe that post-closure care has not been in accordance with the approved post-closure plan. The administrative authority will provide the owner or operator a detailed written statement of any such reason to believe that post-closure care has not been in accordance with the approved post-closure plan.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 13:433 (August 1987), LR 18:723 (July 1992), amended by the Office of Waste Services, Hazardous Waste Division, LR 23:1521 (November 1997), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2504 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2479 (October 2005), LR 33:2131 (October 2007), LR 34:1003 (June 2008).

§4411. Liability Requirements

A. – D. ...

E. Period of Coverage. Within 60 days after receiving certifications from the owner or operator and an independent, qualified professional engineer that final closure has been completed in accordance with the approved closure plan, the administrative authority will notify the owner or operator in writing that he is no longer required by this Section to maintain liability coverage for that facility, unless the administrative authority has reason to believe that closure has not been in accordance with the approved closure plan.

F. – K. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:433 (August 1987), LR 16:399 (May 1990), LR 18:723 (July 1992), repromulgated LR 19:627 (May 1993), amended by the Office of Waste Services, Hazardous Waste Division, LR 23:1521 (November 1997), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2506 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2481 (October 2005), LR 33:2133 (October 2007), LR 34:1004 (June 2008).

Subchapter I. Tanks

§4431. Applicability

A. ...

1. Tank systems that are used to store or treat hazardous waste that contains no free liquids and that are situated inside a building with an impermeable floor are exempted from the requirements of LAC 33:V.4437. To demonstrate the absence or presence of free liquids in the stored/treated waste, the following test must be used: Method 9095B (Paint Filter Liquids Test) as described in *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, EPA Publication SW-846, as incorporated by reference in LAC 33:V.110.

2. – 3. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:651 (November 1987), LR 16:614 (July 1990), LR 18:1375 (December 1992), LR 22:829 (September 1996), amended by the Office of the Secretary, Legal Affairs Division, LR 34:1019 (June 2008).

§4433. Assessment of Existing Tank System's Integrity

A. For each existing tank system that does not have secondary containment meeting the requirements of these regulations, the owner or operator must determine that the tank system is not leaking or unfit for use. Except as provided in Subsection C of this Section, the owner or operator must obtain and keep on file at the facility a written assessment reviewed and certified by an independent, qualified professional engineer in accordance with LAC 33:V.513 that attests to the tank system's integrity by November 20, 1988.

B. – B.5.a. ...

b. for other than non-enterable underground tanks and for ancillary equipment, this assessment must be either a leak test, as described in Subparagraph B.5.a of this Section, or an internal inspection and/or other tank integrity examination certified by an independent, qualified

professional engineer in accordance with LAC 33:V.513 that addresses cracks, leaks, corrosion, and erosion.

C. – D. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:651 (November 1987), LR 18:723 (July 1992), amended by the Office of the Secretary, Legal Affairs Division, LR 34:1004 (June 2008).

§4435. Design and Installation of New Tank Systems or Components

A. Owners or operators of new tank systems or components must ensure that the foundation, structural support, seams, connections, and pressure controls (if applicable) are adequately designed and that the tank system has sufficient structural strength, compatibility with the waste(s) to be stored or treated, and corrosion protection so that it will not collapse, rupture, or fail. The owner or operator must obtain a written assessment reviewed and certified by an independent, qualified professional engineer in accordance with LAC 33:V.513 attesting that the system has sufficient structural integrity and is acceptable for the storing and treating of hazardous waste. This assessment must include, at a minimum, the following information:

1. – 5.c. ...

B. The owner or operator of a new tank system must ensure that proper handling procedures are adhered to in order to prevent damage to the system during installation. Prior to covering, enclosing, or placing a new tank system or component in use, an independent, qualified installation inspector or an independent, qualified professional engineer, either of whom is trained and experienced in the proper installation of tank systems, must inspect the system or component for the presence of any of the following items:

B.1. – G. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:651 (November 1987), LR 18:723 (July 1992), amended by the Office of the Secretary, Legal Affairs Division, LR 34:1004 (June 2008).

§4437. Containment and Detection of Releases

A. ...

1. for all new and existing tank systems or components, prior to their being put into service;

2. for tank systems that store or treat materials that become hazardous wastes, within two years of the hazardous waste listing, or when the tank system has reached 15 years of age, whichever comes later.

B. Secondary containment systems must be:

B.1. – I.1. ...

2. For other than non-enterable underground tanks and for all ancillary equipment, an annual leak test, as described in Paragraph I.1 of this Section, or an internal inspection or other tank integrity examination by an independent, qualified professional engineer that addresses cracks, leaks, corrosion, and erosion must be conducted at least annually. The owner or operator must remove the stored waste from the tank, if necessary, to allow the condition of all internal tank surfaces to be assessed.

3. – 4. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:651 (November 1987), LR 14:790 (November 1988), LR 16:614 (July 1990), LR 18:723 (July 1992), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2507 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2482 (October 2005), LR 33:2134 (October 2007), LR 34:1004 (June 2008).

§4438. Special Requirements for Generators of Between 100 and 1,000 kg/month That Accumulate Hazardous Waste in Tanks

A. – B.4.NOTE. ...

C. Except as noted in Subsection D of this Section, generators who accumulate between 100 and 1,000 kg/month of hazardous waste in tanks must inspect, where present:

1. – 5.NOTE. ...

D. Generators who accumulate between 100 and 1,000 kg/month of hazardous waste in tanks or tank systems that have full secondary containment and that either use leak detection equipment to alert facility personnel to leaks, or implement established workplace practices to ensure that leaks are promptly identified, must inspect at least weekly, where applicable, the areas identified in Paragraphs C.1-5 of this Section. Use of the alternate inspection schedule must be documented in the facility's operating record. This documentation must include a description of the established workplace practices at the facility.

E. Generators of between 100 and 1,000 kg/month accumulating hazardous waste in tanks must, upon closure of the facility, remove all hazardous waste from tanks, discharge control equipment, and discharge confinement structures.

[NOTE: At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with LAC 33:V.109.Hazardous Waste.4 or 5, that any solid waste removed from the tank is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of LAC 33:V.Chapters 11, 13, and 43.]

F. Generators of between 100 and 1,000 kg/month must comply with the following special requirements for ignitable or reactive waste:

1. ignitable or reactive waste must not be placed in a tank, unless:

a. the waste is treated, rendered, or mixed before or immediately after placement in a tank so that the resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under LAC 33:V.4903.B or D, and LAC 33:V.4321.B is complied with; or

b. the waste is stored or treated in such a way that it is protected from any material or conditions that may cause the waste to ignite or react; or

c. the tank is used solely for emergencies.

2. the owner or operator of a facility that treats or stores ignitable or reactive waste in covered tanks must comply with the buffer zone requirements for tanks contained in Tables 2-1 through 2-6 of the National Fire Protection Association's *Flammable and Combustible Liquids Code*, (1977 or 1981) (incorporated by reference, see LAC 33:V.110).

G. Generators of between 100 and 1,000 kg/month must comply with the following special requirements for incompatible wastes:

1. incompatible wastes, or incompatible wastes and materials, must not be placed in the same tank, unless LAC 33:V.4321.B is complied with; and

2. hazardous waste must not be placed in an unwashed tank that previously held an incompatible waste or material, unless LAC 33:V.4321.B is complied with.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 27:714 (May 2001), amended by the Office of the Secretary, Legal Affairs Division, LR 34:1005 (June 2008).

§4439. General Operating Requirements

A. – B. ...

1. spill prevention controls (e.g., check valves, dry disconnect couplings);

B.2. – C. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:651 (November 1987), amended by the Office of the Secretary, Legal Affairs Division, LR 34:634 (April 2008).

§4440. Inspections

A. The owner or operator must inspect, where present, at least once each operating day data gathered from monitoring and leak detection equipment (e.g., pressure or temperature gauges, monitoring wells) to ensure that the tank system is being operated according to its design.

B. Except as noted under Subsection C of this Section, the owner or operator must inspect at least once each operating day:

1. overfill/spill control equipment (e.g., waste-feed cutoff systems, bypass systems, and drainage systems) to ensure that it is in good working order;
2. the aboveground portions of the tank system, if any, to detect corrosion or releases of waste; and
3. the construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment structure (e.g., dikes) to detect erosion or signs of releases of hazardous waste (e.g., wet spots, dead vegetation).

C. Owners or operators of tank systems that either use leak detection equipment to alert facility personnel to leaks, or implement established workplace practices to ensure that leaks are promptly identified, must inspect at least weekly those areas described in Paragraphs B.1-3 of this Section. Use of the alternate inspection schedule must be documented in the facility's operating record. This documentation must include a description of the established workplace practices at the facility.

D. Ancillary equipment that is not provided with secondary containment, as described in LAC 33:V.4437.F.1-4, must be inspected at least once each operating day.

E. The owner or operator must inspect cathodic protection systems, if present, according to, at a minimum, the following schedule to ensure that they are functioning properly:

1. the proper operation of the cathodic protection system must be confirmed within six months after initial installation, and annually thereafter; and
2. all sources of impressed current must be inspected and/or tested, as appropriate, at least bimonthly (i.e., every other month).

F. The owner or operator must document in the operating record of the facility an inspection of those items in Subsections A and B of this Section.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:651 (November 1987), LR 18:723 (July 1992), amended by the Office of the Secretary, Legal Affairs Division, LR 34:1005 (June 2008).

§4441. Response to Leaks or Spills and Disposition of Leaking or Unfit-for-Use Tank Systems

A tank system or secondary containment system from which there has been a leak or spill, or which is unfit for use, must be removed from service immediately, and the owner or operator must satisfy the following requirements.

A. – E.4. ...

F. **Certification of Major Repairs.** If the owner or operator has repaired a tank system in accordance with Subsection E of this Section, and the repair has been extensive (e.g., installation of an internal liner; repair of a ruptured primary containment or secondary containment vessel), the tank system must not be returned to service unless the owner/operator has obtained a certification by an independent, qualified professional engineer in accordance with LAC 33:V.513 that the repaired system is capable of handling hazardous wastes without release for the intended life of the system. This certification is to be placed in the operating record and maintained until closure of the facility.

[NOTE: The administrative authority may, on the basis of any information received that there is or has been a release of hazardous waste or hazardous constituents into the environment, issue an order requiring corrective action or such other response as deemed necessary to protect human health or the environment.]

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:651 (November 1987), LR 16:614 (July 1990), LR 18:723 (July 1992), amended by the Office of the Secretary, Legal Affairs Division, LR 34:1006 (June 2008).

Subchapter J. Surface Impoundments

NOTE: §4451 has moved to §4452.

§4452. Response Actions

[Formerly §4451]

A. The owner or operator of surface impoundment units subject to LAC 33:V.4462.A must develop and keep on-site until closure of the facility a response action plan. The response action plan must set forth the actions to be taken if the action leakage rate has been exceeded. At a minimum, the response action plan must describe the actions specified in Subsection B of this Section.

B. – B.5. ...

6. within 30 days after the notification that the action leakage rate has been exceeded, submit to the administrative authority the results of the analyses specified in Paragraphs B.3-5 of this Section, the results of actions taken, and actions planned. Monthly thereafter, as long as the flow rate in the leak detection system exceeds the action leakage rate, the owner or operator must submit to the administrative

authority a report summarizing the results of any remedial actions taken and actions planned.

C. To make the leak and/or remediation determinations in Paragraphs B.3-5 of this Section, the owner or operator must:

1. – 4. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 21:266 (March 1995), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2508 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2483 (October 2005), LR 33:2135 (October 2007), LR 34:1006 (June 2008).

Subchapter J. Surface Impoundments

§4457. Closure and Post-Closure

A. – C.1. ...

2. maintain and monitor the leak detection system in accordance with LAC 33:V.2903.J.3.d and 4 and 4455.B and comply with all other applicable leak detection system requirements of this Chapter;

3. – 4. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 15:470 (June 1989), LR 18:723 (July 1992), LR 21:266 (March 1995), amended by the Office of the Secretary, LR 24:2249 (December 1998), amended by the Office of the Secretary, Legal Affairs Division, LR 34:634 (April 2008).

§4462. Design Requirements

A. The owner or operator of each new surface impoundment unit, each lateral expansion of a surface impoundment unit, and each replacement of an existing surface impoundment unit must install two or more liners and a leachate collection and removal system between the liners and operate the leachate collection and removal system in accordance with LAC 33:V.2903.J, unless exempted under LAC 33:V.2903.C, K, or L.

B. – H. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 16:220 (March 1990), amended LR 17:368 (April 1991), LR 18:723 (July 1992), LR 20:1000 (September 1994), LR 21:266 (March 1995), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2508 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2483 (October 2005), LR 33:2135 (October 2007), LR 34:1006 (June 2008).

Subchapter K. Waste Piles

§4472. Response Actions

A. The owner or operator of waste pile units subject to LAC 33:V.4476 must develop and keep on-site until closure of the facility a response action plan. The response action plan must set forth the actions to be taken if the action leakage rate has been exceeded. At a minimum, the response action plan must describe the actions specified in Subsection B of this Section.

B. – C.4. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2508 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2483 (October 2005), LR 33:2135 (October 2007), LR 34:1006 (June 2008).

Subchapter L. Land Treatment

§4489. Closure and Post-Closure

A. – D.4. ...

E. For the purpose of complying with LAC 33:V.4387, when closure is completed the owner or operator may submit to the Office of Environmental Services certification both by the owner or operator and by an independent, qualified soil scientist in lieu of an independent, qualified professional engineer, that the facility has been closed in accordance with the specifications in the approved closure plan.

F. – F.4. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 18:723 (July 1992), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2509 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2483 (October 2005), LR 33:2135 (October 2007), LR 34:1006 (June 2008).

Subchapter M. Landfills

§4497. Action Leakage Rate

A. ...

B. The administrative authority shall approve an action leakage rate for landfill units subject to LAC 33:V.4512.A. The action leakage rate is the maximum design flow rate that the leak detection system (LDS) can remove without the fluid head on the bottom liner exceeding 1 foot. The action leakage rate must include an adequate safety margin to allow for uncertainties in the design (e.g., slope, hydraulic conductivity, thickness of drainage material), construction, operation, and location of the LDS, waste and leachate characteristics, likelihood and amounts of other sources of

liquids in the LDS, and proposed response actions (e.g., the action leakage rate must consider decreases in the flow capacity of the system over time resulting from siltation and clogging, rib layover and creep of synthetic components of the system, overburden pressures, etc.).

C. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 21:266 (March 1995), amended by the Office of the Secretary, Legal Affairs Division, LR 34:634 (April 2008).

§4498. Response Actions

A. The owner or operator of landfill units subject to LAC 33:V.4512.A must develop and keep on-site until closure of the facility a response action plan. The response action plan must set forth the actions to be taken if the action leakage rate has been exceeded. At a minimum, the response action plan must describe the actions specified in Subsection B of this Section.

B. – C.4. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995), amended by the Office of the Secretary, Legal Affairs Division, LR 34:1007 (June 2008).

§4507. Special Requirements for Liquid Waste

A. The placement of bulk or noncontainerized liquid hazardous waste or hazardous waste containing free liquids (whether or not sorbents have been added) in any landfill is prohibited.

B. Containers holding free liquids must not be placed in a landfill unless:

1. all free-standing liquid:
 - a. has been removed by decanting or other methods;
 - b. has been mixed with sorbent or solidified so that free-standing liquid is no longer observed; or
 - c. has been otherwise eliminated; or
2. the container is very small, such as an ampule; or
3. the container is designed to hold free liquids for use other than storage, such as a battery or capacitor; or
4. the container is a lab pack as defined in LAC 33:V.4511 and is disposed of in accordance with LAC 33:V.4511.

C. To demonstrate the absence or presence of free liquids in either a containerized or a bulk waste, the following test must be used: Method 9095B (Paint Filter Liquids Test) as described in *Test Methods for Evaluating Solid Waste*,

Physical/Chemical Methods, EPA Publication SW-846, as incorporated by reference in LAC 33:V.110.

D. The date for compliance with Subsection A of this Section is November 19, 1981. The date for compliance with Subsection B of this Section is March 22, 1982.

E. Sorbents used to treat free liquids to be disposed of in landfills must be nonbiodegradable. Nonbiodegradable sorbents are: materials listed or described in Paragraph E.1 of this Section; materials that pass one of the tests in Paragraph E.2 of this Section; or materials that are determined by EPA to be nonbiodegradable through the petition process in LAC 33:V.105.

1. Nonbiodegradable Sorbents. The following materials are nonbiodegradable sorbents:

a. inorganic minerals, other inorganic materials, and elemental carbon (e.g., aluminosilicates, clays, smectites, Fuller's earth, bentonite, calcium bentonite, montmorillonite, calcined montmorillonite, kaolinite, micas [illite], vermiculites, zeolites, calcium carbonate [organic free limestone]; oxides/hydroxides, alumina, lime, silica [sand], diatomaceous earth, perlite [volcanic glass]; expanded volcanic rock, volcanic ash, cement kiln dust, fly ash, rice hull ash, and activated charcoal/activated carbon); or

b. high molecular weight synthetic polymers (e.g., polyethylene, high-density polyethylene (HDPE), polypropylene, polystyrene, polyurethane, polyacrylate, polynorborene, polyisobutylene, ground synthetic rubber, cross-linked allylstyrene, and tertiary butyl copolymers). This does not include polymers derived from biological material or polymers specifically designed to be degradable; or

c. mixtures of these nonbiodegradable materials.

2. Tests for Nonbiodegradable Sorbents

a. The sorbent material is determined to be nonbiodegradable under ASTM Method G21-70 (1984a)-Standard Practice for Determining Resistance of Synthetic Polymer Materials to Fungi; or

b. the sorbent material is determined to be nonbiodegradable under ASTM Method G22-76 (1984b)-Standard Practice for Determining Resistance of Plastics to Bacteria; or

c. the sorbent material is determined to be nonbiodegradable under OECD test 301B: [CO₂ Evolution (Modified Sturm Test)].

F. The placement of any liquid that is not a hazardous waste in a landfill is prohibited unless the owner or operator of such landfill demonstrates to the administrative authority or the administrative authority determines that:

1. the only reasonably available alternative to the placement in such landfill is placement in a landfill or unlined surface impoundment, whether or not permitted or operating under interim status, which contains or may reasonably be anticipated to contain hazardous waste; and

2. placement in such owner's or operator's landfill will not present a risk of contamination of any *underground source of drinking water*, as defined in LAC 33:V.109.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), LR 21:266 (March 1995), LR 22:829 (September 1996), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:686 (April 1998), amended by the Office of the Secretary, Legal Affairs Division, LR 34:634 (April 2008), LR 34:1007 (June 2008).

§4512. Design and Operating Requirements

A. The owner or operator of each new landfill unit, each lateral expansion of a landfill unit, and each replacement of an existing landfill unit, must install two or more liners and a leachate collection and removal system above and between such liners and operate the leachate collection and removal systems, in accordance with LAC 33:V.2503.L, unless exempted by Subsection C, D, or E of this Section.

B. – C.2. ...

D. The double liner requirement set forth in Subsection A of this Section may be waived by the administrative authority for any monofill, if it meets the requirements specified in Paragraphs D.1 and 2 of this Section.

1. The monofill contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand, and such wastes do not contain constituents that would render the wastes hazardous for reasons other than the toxicity characteristics in LAC 33:V.4903.E, with EPA Hazardous Waste Numbers D004-D017.

D.2. – I. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 16:220 (March 1990), amended LR 18:723 (July 1992), LR 20:1000 (September 1994), LR 21:266 (March 1995), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2509 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2483 (October 2005), LR 33:2135 (October 2007), LR 34:634 (April 2008), LR 34:1007 (June 2008).

Subchapter N. Incinerators

§4513. Applicability

A. ...

B. Integration of the MACT Standards

1. Except as provided by Paragraphs B.2 and 3 of this Section, the standards of this Chapter no longer apply when an owner or operator demonstrates compliance with the maximum achievable control technology (MACT) requirements of 40 CFR Part 63, Subpart EEE, as incorporated by reference at LAC 33:III.5122, by conducting a comprehensive performance test and submitting to the

administrative authority a notification of compliance under 40 CFR 63.1207(j) and 63.1210(d) documenting compliance with the requirements of 40 CFR Part 63, Subpart EEE.

B.2. – C.4. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 15:737 (September 1989), amended LR 16:220 (March 1990), LR 18:1375 (December 1992), LR 20:1000 (September 1994), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 27:303 (March 2001), LR 29:324 (March 2003), amended by the Office of the Secretary, Legal Affairs Division, LR 34:635 (April 2008).

Subchapter T. Containment Buildings

§4701. Applicability

A. The requirements of this Subchapter apply to owners or operators who store or treat hazardous waste in units designed and operated under LAC 33:V.4703. The owner or operator is not subject to the definition of land disposal in RCRA Section 3004(k) provided that the unit:

1. – 3. ...

4. has controls as needed to prevent fugitive dust emissions; and

5. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995), amended LR 21:944 (September 1995), amended by the Office of the Secretary, Legal Affairs Division, LR 34:635 (April 2008), LR 34:1008 (June 2008).

§4703. Design and Operating Standards

A. – B.3.b. ...

c. the secondary containment system must be constructed of materials that are chemically resistant to the waste and liquids managed in the containment building and of sufficient strength and thickness to prevent collapse under the pressure exerted by overlaying materials and by any equipment used in the containment building. (Containment buildings can serve as secondary containment systems for tanks placed within the building under certain conditions. A containment building can serve as an external liner system for a tank, provided it meets the requirements of LAC 33:V.4437.E.1. In addition, the containment building must meet the requirements of LAC 33:V.4437.B and C to be considered an acceptable secondary containment system for a tank.); and

B.4. – C.1.d. ...

2. obtain and keep on-site a certification by a qualified professional engineer that the containment building design meets the requirements of Subsections A-C of this Section;

3. throughout the active life of the containment building, if the owner or operator detects a condition that could lead to or has caused a release of hazardous waste, repair the condition promptly, in accordance with the following procedures:

C.3.a. – E. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2509 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 33:2136 (October 2007), LR 34:635 (April 2008), LR 34:1008 (June 2008).

Subchapter V. Air Emission Standards for Tanks, Surface Impoundments, and Containers

§4727. Waste Determination Procedures

A. – A.3.b.ii. ...

iii. All samples shall be collected and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan shall describe the procedure by which representative samples of the hazardous waste stream are collected such that a minimum loss of organics occurs throughout the sample collection and handling process and by which sample integrity is maintained. A copy of the written sampling plan shall be maintained on-site in the facility operating records. An example of acceptable sample collection and handling procedures for a total volatile organic constituent concentration may be found in Method 25D in 40 CFR Part 60, Appendix A.

iv. ...

c. Analysis. Each collected sample shall be prepared and analyzed in accordance with Method 25D in 40 CFR Part 60, Appendix A for the total concentration of volatile organic constituents, or by using one or more appropriate methods when the individual organic compound concentrations are identified and summed and the summed waste concentration accounts for and reflects all organic compounds in the waste with Henry's law constant values at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X) (which can also be expressed as 1.8×10^{-6} atmospheres/gram-mole/m³) at 25°C. At the owner's or operator's discretion, the owner or operator may adjust test data obtained by any appropriate method to discount any contribution to the total volatile organic concentration that is a result of including a compound with a Henry's law constant value of less than 0.1 Y/X at 25°C. To adjust these data, the measured concentration of each individual chemical constituent contained in the waste is multiplied by the appropriate constituent-specific adjustment factor (f_{m25D}). If the owner or operator elects to adjust test data, the adjustment must be made to all individual chemical

constituents with a Henry's law constant value greater than or equal to 0.1 Y/X at 25°C that are contained in the waste. Constituent-specific adjustment factors (f_{m25D}) can be obtained by contacting the Waste and Chemical Processes Group, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711. Other test methods may be used if they meet one of the following requirements in Clause A.3.c.i or ii of this Section and provided that the requirement to reflect all organic compounds in the waste with Henry's law constant values greater than or equal to 0.1 Y/X (which can also be expressed as 1.8×10^{-6} atmospheres/gram-mole/m³) at 25°C is met:

i. any EPA standard method that has been validated in accordance with *Alternative Validation Procedure for EPA Waste and Wastewater Methods*, 40 CFR Part 63, Appendix D; or

ii. any other analysis method that has been validated in accordance with the procedures specified in Section 5.1 or Section 5.3, and the corresponding calculations in Section 6.1 or Section 6.3, of Method 301 in 40 CFR Part 63, Appendix A. The data are acceptable if they meet the criteria specified in Section 6.1.5 or Section 6.3.3 of Method 301. If correction is required under Section 6.3.3 of Method 301, the data are acceptable if the correction factor is within the range 0.7 to 1.30. Other sections of Method 301 are not required.

A.3.d. – B.3.b.ii. ...

iii. All samples shall be collected and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan shall describe the procedure by which representative samples of the hazardous waste stream are collected such that a minimum loss of organics occurs throughout the sample collection and handling process and by which sample integrity is maintained. A copy of the written sampling plan shall be maintained on-site in the facility operating records. An example of acceptable sample collection and handling procedures for a total volatile organic constituent concentration may be found in Method 25D in 40 CFR Part 60, Appendix A.

iv. ...

c. Analysis. Each collected sample shall be prepared and analyzed in accordance with Method 25D in 40 CFR Part 60, Appendix A for the total concentration of volatile organic constituents, or by using one or more appropriate methods when the individual organic compound concentrations are identified and summed and the summed waste concentration accounts for and reflects all organic compounds in the waste with Henry's law constant values at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X) (which can also be expressed as 1.8×10^{-6} atmospheres/gram-mole/m³) at 25°C. When the owner or operator is making a waste determination for a treated hazardous waste that is to be compared to an average VO concentration at the point of waste origination or the point of waste entry to the treatment system, to determine if

the conditions of LAC 33:V.4723 or 4725 are met, then the waste samples shall be prepared and analyzed using the same method or methods as were used in making the initial waste determinations at the point of waste origination or at the point of entry to the treatment system. At the owner's or operator's discretion, the owner or operator may adjust test data obtained by any appropriate method to discount any contribution to the total VO concentration that is a result of including a compound with a Henry's law constant value less than 0.1 Y/X at 25°C. To adjust these data, the measured concentration of each individual chemical constituent contained in the waste is multiplied by the appropriate constituent-specific adjustment factor (f_{m25D}). If the owner or operator elects to adjust test data, the adjustment must be made to all individual chemical constituents with a Henry's law constant value greater than or equal to 0.1 Y/X at 25°C that are contained in the waste. Constituent-specific adjustment factors (f_{m25D}) can be obtained by contacting the Waste and Chemical Processes Group, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711. Other test methods may be used if they meet one of the following requirements in Clause B.3.c.i or ii of this Section and provided that the requirement to reflect all organic compounds in the waste with Henry's law constant values greater than or equal to 0.1 Y/X (which can also be expressed as 1.8×10^{-6} atmospheres/gram-mole/m³) at 25°C is met:

i. any EPA standard method that has been validated in accordance with *Alternative Validation Procedure for EPA Waste and Wastewater Methods*, 40 CFR Part 63, Appendix D; or

ii. any other analysis method that has been validated in accordance with the procedures specified in Section 5.1 or Section 5.3, and the corresponding calculations in Section 6.1 or Section 6.3, of Method 301 in 40 CFR Part 63, Appendix A. The data are acceptable if they meet the criteria specified in Section 6.1.5 or Section 6.3.3 of Method 301. If correction is required under Section 6.3.3 of Method 301, the data are acceptable if the correction factor is within the range 0.7 to 1.30. Other sections of Method 301 are not required.

B.3.d. – C.2. ...

3. Direct Measurement to Determine the Maximum Organic Vapor Pressure of a Hazardous Waste

a. Sampling. A sufficient number of samples shall be collected to be representative of the waste contained in the tank. All samples shall be collected and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan shall describe the procedure by which representative samples of the hazardous waste are collected such that a minimum loss of organics occurs throughout the sample collection and handling process and by which sample integrity is maintained. A copy of the written sampling plan shall be maintained on-site in the facility operating records. An example of acceptable sample collection and handling

procedures may be found in Method 25D in 40 CFR Part 60, Appendix A.

C.3.b. – D.9. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Waste Services, Hazardous Waste Division, LR 24:1747 (September 1998), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:288 (February 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 34:1019 (June 2008).

Chapter 49. Lists of Hazardous Wastes

[Comment: Chapter 49 is divided into two sections: Category I Hazardous Wastes, which consist of Hazardous Wastes from nonspecific and specific sources (F and K wastes), Acute Hazardous Wastes (P wastes), and Toxic Wastes (U wastes) (LAC 33:V.4901); and Category II Hazardous Wastes, which consist of wastes that are ignitable, corrosive, reactive, or toxic (LAC 33:V.4903).]

§4901. Category I Hazardous Wastes

A. – A.2. ...

B. Hazardous Wastes from Nonspecific Sources

1. The following solid wastes are listed hazardous wastes from nonspecific sources unless they are excluded in accordance with LAC 33:V.105.H.

[NOTE: EPA, in January 1985, added new listed hazardous wastes.]

Table 1. Hazardous Wastes from Nonspecific Sources		
Industry and EPA Hazardous Waste Number	Hazard Code	Hazardous Waste

[See Prior Text]		

* (I,T) should be used to specify mixtures that are ignitable and contain toxic constituents.

B.2. – B.3.b.ii.(b).(ii). ...

(c). Analytical Requirements

(i). Rinses must be tested by using an appropriate method.

(ii). *Not detected* means at or below the lower method calibration limit (MCL). The 2,3,7,8-TCDD-based MCL is 0.01 parts per trillion (ppt), sample weight of 1000g, IS spiking level of 1 ppt, final extraction volume of 10-50 µL. For other congeners, multiply the values by 1 for TCDF/PeCDD/PeCDF, by 2.5 for HxCDD/HxCDF/HpCDD/HpCDF, and by 5 for OCDD/OCDF.

B.3.b.ii.(d). – D.4.Comment. ...

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E. The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products or manufacturing chemical intermediates referred to in Paragraphs D.1-4 of this Section are identified as acute hazardous wastes (H) and are subject to the small quantity exclusions defined in LAC 33:V.108.E. These wastes and their corresponding EPA Hazardous Waste Numbers are listed in Table 3 of this Section.

[Comment: For the convenience of the regulated community the primary hazardous properties of these materials have been indicated by the letters T (Toxicity) and R (Reactivity). Absence of a letter indicates that the compound is listed only for acute toxicity. Wastes are first listed in alphabetical order by substance and then listed again in numerical order by EPA Hazardous Waste Number.]

Table 3. Acute Hazardous Wastes (Alphabetical Order by Substance)		
EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste (Substance)
* * *		
[See Prior Text in Acetaldehyde, chloro- – Brucine]		
P045	39196-18-4	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O- [(methylamino) carbonyl] oxime
* * *		
[See Prior Text in Calcium cyanide – Carbamic acid, [(dibutylamino)-thio]methyl-, 2,3-dihydro-2,2-dimethyl-7-benzofuranyl ester]		
P191	644-64-4	Carbamic acid, dimethyl-, 1-[(dimethyl-amino)carbonyl]-5-methyl-1H-pyrazol-3-yl ester
P192	119-38-0	Carbamic acid, dimethyl-, 3-methyl-1- (1-methylethyl)-1H-pyrazol-5-yl ester
* * *		
[See Prior Text in Carbamic acid, methyl-, 3-methylphenyl ester – Diethyl-p-nitrophenyl phosphate]		
P040	297-97-2	O,O-Diethyl O-pyrazinyl phosphorothioate
* * *		
[See Prior Text in Diisopropylfluorophosphate (DFP) – Ethanedinitrile]		
P194	23135-22-0	Ethanimidothioic acid, 2-(dimethylamino)-N-[[[(methylamino) carbonyl]oxy]-2-oxo-, methyl ester
* * *		
[See Prior Text in Ethanimidothioic acid, N- [[[(methylamino)carbonyl]oxy]-, methyl ester – Isolan]		
P202	64-00-6	3-Isopropylphenyl N-methylcarbamate
* * *		
[See Prior Text in 3 (2H)-Isoxazolone, 5-(aminomethyl)- – Methanethiol, trichloro-]		
P198	23422-53-9	Methanimidamide, N,N-dimethyl-N'-[3-[[[(methylamino)-carbonyl]oxy]phenyl]-monohydrochloride
P197	17702-57-7	Methanimidamide, N,N-dimethyl-N'-[2-methyl-4-[[[(methylamino)carbonyl]oxy]phenyl]-
* * *		
[See Prior Text in 6, 9-Methano-2,4,3-benzo-dioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a- hexahydro-,3-oxide – Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate]		
P128	315-18-4	Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester)
* * *		
[See Prior Text in Phenol, 2,4-dinitro- – Phosphoric acid, diethyl 4-nitrophenyl ester]		
P039	298-04-4	Phosphorodithioic acid, O,O- diethyl S-[2-(ethylthio)ethyl] ester
* * *		
[See Prior Text in Phosphorodithioic acid, O, O-diethyl S-[(ethylthio)methyl] ester – Tetraethyldithiopyrophosphate]		
P110	78-00-2	Tetraethyl lead
* * *		
[See Prior Text in Tetraethyl pyrophosphate – Ziram]		
¹ CAS Number given for parent compound only.		

Table 3. Acute Hazardous Wastes (Numerical Order by EPA Hazardous Waste Number)		
EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste (Substance)
P001	¹ 81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy- 3-(3-oxo-1-phenylbutyl)-, and salts, when present at concentrations greater than 0.3 percent
P001	¹ 81-81-2	Warfarin, and salts, when present at concentrations greater than 0.3 percent
P002	591-08-2	Acetamide, N-(aminothioxomethyl)-
P002	591-08-2	1-Acetyl-2-thiourea
P003	107-02-8	Acrolein
P003	107-02-8	2-Propenal
P004	309-00-2	Aldrin
P004	309-00-2	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10- hexachloro- 1,4,4a,5,8,8a,-hexahydro-, (1alpha, 4alpha, 4abeta, 5alpha, 8alpha, 8abeta)-
P005	107-18-6	Allyl alcohol
P005	107-18-6	2-Propen-1-ol
P006	20859-73-8	Aluminum phosphide (R,T)
P007	2763-96-4	5-(aminomethyl)-3-isoxazolol
P007	2763-96-4	3 (2H)-Isloxazolone, 5-(aminomethyl)-
P008	504-24-5	4-Aminopyridine
P008	504-24-5	4-Pyridinamine
P009	131-74-8	Ammonium picrate (R)
P009	131-74-8	Phenol, 2,4,6-trinitro-, ammonium salt (R)
P010	7778-39-4	Arsenic acid H ₃ AsO ₄
P011	1303-28-2	Arsenic oxide As ₂ O ₅
P011	1303-28-2	Arsenic pentoxide
P012	1327-53-3	Arsenic oxide As ₂ O ₃
P012	1327-53-3	Arsenic trioxide
P013	542-62-1	Barium cyanide
P014	108-98-5	Benzenethiol
P014	108-98-5	Thiophenol
P015	7440-41-7	Beryllium Powder
P016	542-88-1	Dichloromethyl ether
P016	542-88-1	Methane, oxybis(chloro-
P017	598-31-2	Bromoacetone
P017	598-31-2	2-Propanone, 1-bromo-
P018	357-57-3	Brucine
P018	357-57-3	Strychnidin-10-one, 2,3-dimethoxy-
P020	88-85-7	Dinoseb
P020	88-85-7	Phenol, 2-(1-methylpropyl)-4,6-dinitro-
P021	592-01-8	Calcium cyanide
P021	592-01-8	Calcium cyanide Ca(CN) ₂
P022	75-15-0	Carbon disulfide
P023	107-20-0	Acetaldehyde, chloro-
P023	107-20-0	Chloroacetaldehyde
P024	106-47-8	Benzenamine, 4-chloro-
P024	106-47-8	p-Chloroaniline
P026	5344-82-1	1-(o-Chlorophenyl)thiourea
P026	5344-82-1	Thiourea, (2-chlorophenyl)
P027	542-76-7	3-Chloropropionitrile
P027	542-76-7	Propanenitrile, 3-chloro-
P028	100-44-7	Benzene, (chloromethyl)-
P028	100-44-7	Benzyl chloride
P029	544-92-3	Copper cyanide
P029	544-92-3	Copper cyanide Cu(CN)
P030		Cyanides (soluble cyanide salts), not otherwise specified
P031	460-19-5	Cyanogen
P031	460-19-5	Ethanedinitrile
P033	506-77-4	Cyanogen chloride
P033	506-77-4	Cyanogen chloride (CN)Cl
P034	131-89-5	2-Cyclohexyl-4,6-dinitrophenol
P034	131-89-5	Phenol, 2-cyclohexyl-4,6-dinitro-
P036	696-28-6	Arsonous dichloride, phenyl-
P036	696-28-6	Dichlorophenylarsine

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Table 3. Acute Hazardous Wastes (Numerical Order by EPA Hazardous Waste Number)		
EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste (Substance)
P037	60-57-1	Dieldrin
P037	60-57-1	2,7:3,6-Dimethanonaphth [2,3- b]oxirene,3,4,5,6,9,9- hexachloro-1a,2,2a,3,6,6a,7,7a- octahydro-, (1aalpha,2beta,2aalpha, 3beta,6beta,6aalpha,7beta, 7aalpha)-
P038	692-42-2	Arsine, diethyl-
P038	692-42-2	Diethylarsine
P039	298-04-4	Disulfoton
P039	298-04-4	Phosphorodithioic acid, O,O- diethyl S-[2-(ethylthio)ethyl] ester
P040	297-97-2	O,O-Diethyl O-pyrazinyl phosphorothioate
P040	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
P041	311-45-5	Diethyl-p-nitrophenyl phosphate
P041	311-45-5	Phosphoric acid, diethyl 4-nitrophenyl ester
P042	51-43-4	1, 2-Benzenediol, 4-[1- hydroxy-2-(methylamino) ethyl], (R)-
P042	51-43-4	Epinephrine
P043	55-91-4	Diisopropylfluorophosphate (DFP)
P043	55-91-4	Phosphorofluoridic acid, bis (1-methylethyl) ester
P044	60-51-5	Dimethoate
P044	60-51-5	Phosphorodithioic acid, O, O-dimethyl S-[2-(methylamino)- 2-oxoethyl] ester
P045	39196-18-4	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O- [(methylamino) carbonyl] oxime
P045	39196-18-4	Thiofanox
P046	122-09-8	Benzeneethanamine, alpha, alpha- dimethyl-
P046	122-09-8	alpha, alpha-Dimethylphenethylamine
P047	¹ 534-52-1	4,6-Dinitro-o-cresol, and salts
P047	¹ 534-52-1	Phenol, 2-methyl-4,6-dinitro-, and salts
P048	51-28-5	2,4-Dinitrophenol
P048	51-28-5	Phenol, 2,4-dinitro-
P049	541-53-7	Dithiobiuret
P049	541-53-7	Thioimidodicarbonic diamide [(H ₂ N)C(S)] ₂ NH
P050	115-29-7	Endosulfan
P050	115-29-7	6, 9-Methano-2,4,3-benzo-dioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a- hexahydro-,3-oxide
P051	¹ 72-20-8	2,7:3,6-Dimethanonaphth [2,3-b] oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a- octahydro-, (1aalpha,2beta,2abeta, 3alpha,6alpha,6abeta,7beta, 7aalpha)-, and metabolites
P051	72-20-8	Endrin
P051	72-20-8	Endrin, and metabolites
P054	151-56-4	Aziridine
P054	151-56-4	Ethyleneimine
P056	7782-41-4	Fluorine
P057	640-19-7	Acetamide, 2-fluoro-
P057	640-19-7	Fluoroacetamide
P058	62-74-8	Acetic acid, fluoro-, sodium salt
P058	62-74-8	Fluoroacetic acid, sodium salt
P059	76-44-8	Heptachlor
P059	76-44-8	4,7-Methano-1H-indene,1,4,5,6,7, 8,8-heptachloro-3a,4,7,7a-tetrahydro-
P060	465-73-6	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10- hexachloro- 1,4,4a,5,8,8a,-hexahydro-, (1alpha,4alpha,4abeta,5beta,8beta, 8abeta)-
P060	465-73-6	Isodrin
P062	757-58-4	Hexaethyl tetraphosphate
P062	757-58-4	Tetraphosphoric acid, hexaethyl ester
P063	74-90-8	Hydrocyanic acid
P063	74-90-8	Hydrogen cyanide
P064	624-83-9	Methane, isocyanato-
P064	624-83-9	Methyl isocyanate
P065	628-86-4	Fulminic acid, mercury (2+) salt (R,T)
P065	628-86-4	Mercury fulminate (R,T)
P066	16752-77-5	Ethanimidothioic acid, N- [(methylamino)carbonyl]oxy]-, methyl ester
P066	16752-77-5	Methomyl
P067	75-55-8	Aziridine, 2-methyl-
P067	75-55-8	1,2-Propylenimine
P068	60-34-4	Hydrazine, methyl-
P068	60-34-4	Methyl hydrazine
P069	75-86-5	2-Methylactonitrile
P069	75-86-5	Propanenitrile, 2-hydroxy-2-methyl-

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Table 3. Acute Hazardous Wastes (Numerical Order by EPA Hazardous Waste Number)		
EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste (Substance)
P070	116-06-3	Aldicarb
P070	116-06-3	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime
P071	298-00-0	Methyl parathion
P071	298-00-0	Phosphorothioic acid, O,O,-dimethyl O-(4-nitrophenyl) ester
P072	86-88-4	alpha-Naphthylthiourea
P072	86-88-4	Thiourea, 1-naphthalenyl-
P073	13463-39-3	Nickel carbonyl
P073	13463-39-3	Nickel carbonyl Ni(CO) ₄ (T-4)-
P074	557-19-7	Nickel cyanide
P074	557-19-7	Nickel cyanide Ni(CN) ₂
P075	¹ 54-11-5	Nicotine, and salts
P075	¹ 54-11-5	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (s)- and salts
P076	10102-43-9	Nitric oxide
P076	10102-43-9	Nitrogen oxide NO
P077	100-01-6	Benzenamine, 4-nitro
P077	100-01-6	p-Nitroaniline
P078	10102-44-0	Nitrogen dioxide
P078	10102-44-0	Nitrogen oxide NO ₂
P081	55-63-0	Nitroglycerine (R)
P081	55-63-0	1,2,3-Propanetriol, trinitrate (R)
P082	62-75-9	Methanamine, N-methyl-N-nitroso-
P082	62-75-9	N-Nitrosodimethylamine
P084	4549-40-0	N-Nitrosomethylvinylamine
P084	4549-40-0	Vinylamine, N-methyl-N-nitroso-
P085	152-16-9	Diphosphoramidate, octamethyl-
P085	152-16-9	Octamethylpyrophosphoramidate
P087	20816-12-0	Osmium oxide OsO ₄ , (T-4)-
P087	20816-12-0	Osmium tetroxide
P088	145-73-3	Endothall
P088	145-73-3	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
P089	56-38-2	Parathion
P089	56-38-2	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester
P092	62-38-4	Mercury, (acetato-O)phenyl-
P092	62-38-4	Phenylmercury acetate
P093	103-85-5	Phenylthiourea
P093	103-85-5	Thiourea, phenyl-
P094	298-02-2	Phorate
P094	298-02-2	Phosphorodithioic acid, O, O-diethyl S-[(ethylthio)methyl] ester
P095	75-44-5	Carbonic dichloride
P095	75-44-5	Phosgene
P096	7803-51-2	Hydrogen phosphide
P096	7803-51-2	Phosphine
P097	52-85-7	Famphur
P097	52-85-7	Phosphorothioic acid, O-[4- [(dimethylamino)sulfonyl] phenyl]O,O- dimethyl ester
P098	151-50-8	Potassium cyanide
P098	151-50-8	Potassium cyanide K(CN)
P099	506-61-6	Argentate (1-), bis(cyano-C)-, potassium
P099	506-61-6	Potassium silver cyanide
P101	107-12-0	Ethyl cyanide
P101	107-12-0	Propanenitrile
P102	107-19-7	Propargyl alcohol
P102	107-19-7	2-Propyn-1-ol
P103	630-10-4	Selenourea
P104	506-64-9	Silver cyanide
P104	506-64-9	Silver cyanide Ag(CN)
P105	26628-22-8	Sodium azide
P106	143-33-9	Sodium cyanide
P106	143-33-9	Sodium cyanide Na(CN)
P108	¹ 57-24-9	Strychnidin-10-one, and salts
P108	¹ 57-24-9	Strychnine, and salts
P109	3689-24-5	Tetraethyldithiopyrophosphate

Title 33, Part V

Table 3. Acute Hazardous Wastes (Numerical Order by EPA Hazardous Waste Number)		
EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste (Substance)
P109	3689-24-5	Thiodiphosphoric acid, tetraethyl ester
P110	78-00-2	Plumbane, tetraethyl-
P110	78-00-2	Tetraethyl lead
P111	107-49-3	Diphosphoric acid, tetraethyl ester
P111	107-49-3	Tetraethyl pyrophosphate
P112	509-14-8	Methane, tetranitro- (R)
P112	509-14-8	Tetranitromethane (R)
P113	1314-32-5	Thallic oxide
P113	1314-32-5	Thallium oxide Tl_2O_3
P114	12039-52-0	Selenious acid, dithallium(1+) salt
P114	12039-52-0	Thallium(I) selenite
P115	7446-18-6	Sulfuric acid, dithallium(1+) salt
P115	7446-18-6	Thallium(I) sulfate
P116	79-19-6	Hydrazinecarbothioamide
P116	79-19-6	Thiosemicarbazide
P118	75-70-7	Methanethiol, trichloro-
P118	75-70-7	Trichloromethanethiol
P119	7803-55-6	Ammonium vanadate
P119	7803-55-6	Vanadic acid, ammonium salt
P120	1314-62-1	Vanadium oxide V_2O_5
P120	1314-62-1	Vanadium pentoxide
P121	557-21-1	Zinc cyanide
P121	557-21-1	Zinc cyanide $Zn(CN)_2$
P122	1314-84-7	Zinc phosphide Zn_3P_2 , when present at concentrations greater than 10 percent (R,T)
P123	8001-35-2	Toxaphene
P127	1563-66-2	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, methylcarbamate
P127	1563-66-2	Carbofuran
P128	315-8-4	Mexacarbate
P128	315-18-4	Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester)
P185	26419-73-8	1,3-Dithiolane-2-carboxaldehyde, 2, 4-dimethyl-, O-[(methylamino)- carbonyl]oxime
P185	26419-73-8	Tirpate
P188	57-64-7	Benzoic acid, 2-hydroxy-, compd. with (3aS-cis)-1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo[2,3-b]indol-5-yl methylcarbamate ester (1:1)
P188	57-64-7	Physostigmine salicylate
P189	55285-14-8	Carbamic acid, [(dibutylamino)-thio]methyl-, 2,3-dihydro-2,2-dimethyl-7-benzofuranyl ester
P189	55285-14-8	Carbosulfan
P190	1129-41-5	Carbamic acid, methyl-, 3-methylphenyl ester
P190	1129-41-5	Metolcarb
P191	644-64-4	Carbamic acid, dimethyl-, 1-[(dimethyl-amino)carbonyl]-5-methyl-1H-pyrazol-3-yl ester
P191	644-64-4	Dimetilan
P192	119-38-0	Carbamic acid, dimethyl-, 3-methyl-1- (1-methylethyl)- 1H-pyrazol-5-yl ester
P192	119-38-0	Isolan
P194	23135-22-0	Ethanimidothioic acid, 2-(dimethylamino)-N-[[[(methylamino) carbonyl]oxy]-2-oxo-, methyl ester
P194	23135-22-0	Oxamyl
P196	15339-36-3	Manganese, bis(dimethylcarbamodithioato-S,S')-
P196	15339-36-3	Manganese, dimethyldithiocarbamate
P197	17702-57-7	Formparanate
P197	17702-57-7	Methanimidamide, N,N-dimethyl-N'-[2-methyl-4-[(methylamino)carbonyl]oxy]phenyl]-
P198	23422-53-9	Formetanate hydrochloride
P198	23422-53-9	Methanimidamide, N,N-dimethyl-N'-[3-[[[(methylamino)-carbonyl]oxy]phenyl]-monohydrochloride
P199	2032-65-7	Methiocarb
P199	2032-65-7	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate
P201	2631-37-0	Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate
P201	2631-37-0	Promecarb
P202	64-00-6	m-Cumenyl methylcarbamate
P202	64-00-6	3-Isopropylphenyl N-methylcarbamate
P202	64-00-6	Phenol, 3-(1-methylethyl)-, methyl carbamate
P203	1646-88-4	Aldicarb sulfone
P203	1646-88-4	Propanal, 2-methyl-2-(methyl-sufonyl)-, O-[(methylamino)carbonyl] oxime
P204	57-47-6	Physostigmine
P204	57-47-6	Pyrrolo[2,3-b]indol-5-ol, 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-,methylcarbamate (ester), (3aS-

Table 3. Acute Hazardous Wastes (Numerical Order by EPA Hazardous Waste Number)		
EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste (Substance)
		cis)-
P205	137-30-4	Zinc,bis(dimethyl-carbamodithioato-S,S')-
P205	137-30-4	Ziram
¹ CAS Number given for parent compound only.		

F. Commercial chemical products or manufacturing chemical intermediates or off-specification commercial chemical products referred to in Paragraphs D.1-4 of this Section are identified as toxic wastes (T) unless otherwise designated and are subject to the small quantity generator exclusion defined in LAC 33:V.108.A and G. These wastes and their corresponding EPA Hazardous Waste Numbers are listed in Table 4 of this Section.

[Comment: For the convenience of the regulated community, the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), R (Reactivity), I (Ignitability), and C (Corrosivity). Absence of a letter indicates that the compound is listed only for toxicity. Wastes are first listed in alphabetical order by substance and then listed again in numerical order by EPA Hazardous Waste Number.]

Table 4. Toxic Wastes (Alphabetical Order by Substance)		
EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste (Substance)
* * *		
[See Prior Text in A2213 – Acetamide, N-9H-fluoren-2-yl-]		
U240	¹ 94-75-7	Acetic acid, (2,4-dichloro- phenoxy)-, salts and esters
U112	141-78-6	Acetic acid, ethyl ester (I)
U144	301-04-2	Acetic acid, lead (2+) salt
* * *		
[See Prior Text in Acetic acid, thallium(1+) salt – Benz (j) aceanthrylene, 1,2-dihydro-3-methyl-]		
U016	225-51-4	Benz(c)acridine
U017	98-87-3	Benzal chloride
* * *		
[See Prior Text in Benzamide,3,5-dichloro-N-(1,1-dimethyl-2 propynyl)- – Ethylene glycol monoethyl ether]		
U115	75-21-8	Ethylene oxide (I,T)
* * *		
[See Prior Text in Ethylene thiourea – 5,12-Naphthacenedione, 8-acetyl-10-[(3- amino-2,3,6-trideoxy)-alpha-L-lyxo-hexopyranosyl)- oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-]		
U026	494-03-1	Naphthalenamine,N,N'-bis (2-chloroethyl)-
* * *		
[See Prior Text in 1-Naphthalenamine – 2-Nitropropane (I,T)]		
U172	924-16-3	N-Nitrosodi-n-butylamine
* * *		
[See Prior Text in N-Nitrosodiethanolamine – 1-Propanol, 2,3-dibromo-, phosphate (3:1)]		
U140	73-83-1	1-Propanol, 2-methyl-(I,T)
* * *		
[See Prior Text in 2-Propanone (I) – 2,4-(1H,3H)-Pyrimidinedione, 5- [bis(2-chloroethyl) amino]-]		
U164	56-04-2	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thio-
* * *		
[See Prior Text in Pyrrolidine, 1-nitroso- – 1H-1,2,4-Triazol-3-amine]		
U226	71-55-6	1,1,1-Trichloroethane
* * *		
[See Prior Text in 1,1,2-Trichloroethane – Vinyl chloride]		
U248	¹ 81-81-2	Warfarin, and salts, when present at concentrations of 0.3 percent or less
U239	1330-20-7	Xylene (I)
U200	50-55-5	Yohimban-16-carboxylic acid,11,17-dimethoxy-18- [(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester,(3beta, 16beta,17alpha,18beta,20alpha)-
U249	1314-84-7	Zinc phosphide Zn ₃ P ₂ , when present at concentrations of 10 percent or less
¹ CAS Number given for parent compound only.		

Table 4. Toxic Wastes (Numerical Order by EPA Hazardous Waste Number)		
EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste (Substance)
U001	75-07-0	Acetaldehyde (I)
U001	75-07-0	Ethanal (I)
U002	67-64-1	Acetone (I)
U002	67-64-1	2-Propanone (I)
U003	75-05-8	Acetonitrile (I,T)
U004	98-86-2	Acetophenone
U004	98-86-2	Ethanone, 1-phenyl-
U005	53-96-3	Acetamide, N-9H-fluoren-2-yl-
U005	53-96-3	2-Acetylaminofluorene
U006	75-36-5	Acetyl chloride (C,R,T)
U007	79-06-1	Acrylamide
U007	79-06-1	2-Propenamide
U008	79-10-7	Acrylic acid (I)
U008	79-10-7	2-Propenoic acid (I)
U009	107-13-1	Acrylonitrile
U009	107-13-1	2-Propenenitrile
U010	50-07-7	Azirino [2',3':3,4]pyrrolo[1,2-a] indole-4,7-dione,6-amino-8- [[(aminocarbonyl)oxy]methyl]-1,1a,2,8,8a,8b,-hexahydro-8a-methoxy-5-methyl-, [1aS-(1aalpha,8beta,8aalpha,8balpha)]-
U010	50-07-7	Mitomycin C
U011	61-82-5	Amitrole
U011	61-82-5	1H-1,2,4-Triazol-3-amine
U012	62-53-3	Aniline (I,T)
U012	62-53-3	Benzenamine (I,T)
U014	492-80-8	Auramine
U014	492-80-8	Benzenamine,4,4'-carbonimidoylbis (N,N-dimethyl-
U015	115-02-6	Azaserine
U015	115-02-6	L-Serine, diazoacetate (ester)
U016	225-51-4	Benz(c)acridine
U017	98-87-3	Benzal chloride
U017	98-87-3	Benzene, (dichloromethyl)-
U018	56-55-3	Benz[a]anthracene
U019	71-43-2	Benzene (I,T)
U020	98-09-9	Benzenesulfonic acid chloride (C,R)
U020	98-09-9	Benzenesulfonyl chloride (C,R)
U021	92-87-5	Benzidine
U021	92-87-5	(1,1'-Biphenyl)-4,4'-diamine
U022	50-32-8	Benzo[a]pyrene
U023	98-07-7	Benzene, (trichloromethyl)-
U023	98-07-7	Benzotrichloride (C,R,T)
U024	111-91-1	Dichloromethoxy ethane
U024	111-91-1	Ethane, 1,1'-[methylenebis (oxy)]bis[2-chloro-
U025	111-44-4	Dichloroethyl ether
U025	111-44-4	Ethane, 1,1'-oxybis [2-chloro-
U026	494-03-1	Chlornaphazin
U026	494-03-1	Naphthalenamine,N,N'-bis (2-chloroethyl)-
U027	108-60-1	Dichloroisopropyl ether
U027	108-60-1	Propane, 2,2'-oxybis[2-chloro-
U028	117-81-7	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester
U028	117-81-7	Diethylhexyl phthalate
U029	74-83-9	Methane, bromo-
U029	74-83-9	Methyl bromide
U030	101-55-3	Benzene, 1-bromo-4-phenoxy-
U030	101-55-3	4-Bromophenyl phenyl ether
U031	71-36-3	1-Butanol (I)
U031	71-36-3	n-Butyl alcohol (I)
U032	13765-19-0	Calcium chromate
U032	13765-19-0	Chromic acid H ₂ CrO ₄ , calcium salt
U033	353-50-4	Carbonic difluoride
U033	353-50-4	Carbon oxyfluoride (R,T)

Table 4. Toxic Wastes (Numerical Order by EPA Hazardous Waste Number)		
EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste (Substance)
U034	75-87-6	Acetaldehyde, trichloro-
U034	75-87-6	Chloral
U035	305-03-3	Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-
U035	305-03-3	Chlorambucil
U036	57-74-9	Chlordane, alpha and gamma isomers
U036	57-74-9	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octa-chloro-2,3,3a,4,7,7a-hexahydro-
U037	108-90-7	Benzene, chloro-
U037	108-90-7	Chlorobenzene
U038	510-15-6	Benzeneacetic acid, 4-chloro-alpha- (4-chlorophenyl)-alpha-hydroxy-, ethyl ester
U038	510-15-6	Chlorobenzilate
U039	59-50-7	p-Chloro-m-cresol
U039	59-50-7	Phenol, 4-chloro-3-methyl-
U041	106-89-8	Epichlorohydrin
U041	106-89-8	Oxirane, (chloromethyl)-
U042	110-75-8	2-Chloroethyl vinyl ether
U042	110-75-8	Ethene, (2-chloroethoxy)-
U043	75-01-4	Ethene, chloro-
U043	75-01-4	Vinyl chloride
U044	67-66-3	Chloroform
U044	67-66-3	Methane, trichloro-
U045	74-87-3	Methane, chloro-(I,T)
U045	74-87-3	Methyl chloride (I,T)
U046	107-30-2	Chloromethyl methyl ether
U046	107-30-2	Methane, chloromethoxy-
U047	91-58-7	beta-Chloronaphthalene
U047	91-58-7	Naphthalene, 2-chloro-
U048	95-57-8	o-Chlorophenol
U048	95-57-8	Phenol, 2-chloro-
U049	3165-93-3	Benzenamine, 4-chloro-2-methyl-, hydrochloride
U049	3165-93-3	4-Chloro-o-toluidine, hydrochloride
U050	218-01-9	Chrysene
U051		Creosote
U052	1319-77-3	Cresols (Cresylic acid)
U052	1319-77-3	Phenol, methyl-
U053	4170-30-3	2-Butenal
U053	4170-30-3	Crotonaldehyde
U055	98-82-8	Benzene, (1-methylethyl)-(I)
U055	98-82-8	Cumene (I)
U056	110-82-7	Benzene, hexahydro-(I)
U056	110-82-7	Cyclohexane (I)
U057	108-94-1	Cyclohexanone (I)
U058	50-18-0	Cyclophosphamide
U058	50-18-0	2H-1,3,2-Oxazaphosphorin-2-amine,N,N- bis(2-chloroethyl) tetrahydro-,2-oxide
U059	20830-81-3	Daunomycin
U059	20830-81-3	5,12-Naphthacenedione, 8-acetyl-10-[(3- amino-2,3,6-trideoxy)-alpha-L-lyxo-hexopyranosyl)-oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-
U060	72-54-8	Benzene, 1, 1'-(2, 2-dichloroethylidene)bis [4-chloro-
U060	72-54-8	DDD
U061	50-29-3	Benzene, 1, 1'-(2,2,2-trichloroethylidene)bis[4-chloro-
U061	50-29-3	DDT
U062	2303-16-4	Carbamothioic acid, bis(1-methylethyl)-S-(2,3-dichloro-2- propenyl)ester
U062	2303-16-4	Diallate
U063	53-70-3	Dibenz[a,h]anthracene
U064	189-55-9	Benzo[rs]pentaphene
U064	189-55-9	Dibenzo[a,i]pyrene
U066	96-12-8	1,2-Dibromo-3-chloropropane
U066	96-12-8	Propane, 1,2-dibromo-3-chloro-
U067	106-93-4	Ethane, 1,2-dibromo-
U067	106-93-4	Ethylene dibromide
U068	74-95-3	Methane, dibromo-
U068	74-95-3	Methylene bromide

Title 33, Part V

Table 4. Toxic Wastes (Numerical Order by EPA Hazardous Waste Number)		
EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste (Substance)
U069	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester
U069	84-74-2	Dibutyl phthalate
U070	95-50-1	Benzene, 1,2-dichloro-
U070	95-50-1	o-Dichlorobenzene
U071	541-73-1	Benzene, 1,3-dichloro-
U071	541-73-1	m-Dichlorobenzene
U072	106-46-7	Benzene, 1,4-dichloro-
U072	106-46-7	p-Dichlorobenzene
U073	91-94-1	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dichloro-
U073	91-94-1	3,3'-Dichlorobenzidine
U074	764-41-0	2-Butene, 1,4-dichloro- (I,T)
U074	764-41-0	1,4-Dichloro-2-butene (I,T)
U075	75-71-8	Dichlorodifluoromethane
U075	75-71-8	Methane, dichlorodifluoro-
U076	75-34-3	Ethane, 1,1-dichloro-
U076	75-34-3	Ethylidene dichloride
U077	107-06-2	Ethane, 1,2-dichloro-
U077	107-06-2	Ethylene dichloride
U078	75-35-4	1,1-Dichloroethylene
U078	75-35-4	Ethene, 1,1-dichloro-
U079	156-60-5	1,2-Dichloroethylene
U079	156-60-5	Ethene, 1,2-dichloro-, (E)-
U080	75-09-2	Methane, dichloro-
U080	75-09-2	Methylene chloride
U081	120-83-2	2,4-Dichlorophenol
U081	120-83-2	Phenol, 2,4-dichloro-
U082	87-65-0	2,6-Dichlorophenol
U082	87-65-0	Phenol, 2,6-dichloro-
U083	78-87-5	Propane, 1,2-dichloro-
U083	78-87-5	Propylene dichloride
U084	542-75-6	1,3-Dichloropropene
U084	542-75-6	1-Propene, 1,3-dichloro-
U085	1464-53-5	2,2'-Bioxirane
U085	1464-53-5	1,2:3,4-Diepoxybutane (I,T)
U086	1615-80-1	N,N'-Diethylhydrazine
U086	1615-80-1	Hydrazine, 1,2-diethyl-
U087	3288-58-2	O,O-Diethyl-S-methyl-dithiophosphate
U087	3288-58-2	Phosphorodithioic acid, O,O-diethyl,S-methyl ester
U088	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester
U088	84-66-2	Diethyl phthalate
U089	56-53-1	Diethylstilbestrol
U089	56-53-1	Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl) bis-, (E)-
U090	94-58-6	1,3-Benzodioxole, 5-propyl-
U090	94-58-6	Dihydrosafrole
U091	119-90-4	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethoxy-
U091	119-90-4	3,3'-Dimethoxybenzidine
U092	124-40-3	Dimethylamine (I)
U092	124-40-3	Methanamine, N-methyl-(I)
U093	60-11-7	Benzenamine,N,N-dimethyl-4-(phenylazo)-
U093	60-11-7	p-Dimethylaminoazobenzene
U094	57-97-6	Benz[a]anthracene, 7,12-dimethyl-
U094	57-97-6	7,12-Dimethylbenz[a]anthracene
U095	119-93-7	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethyl-
U095	119-93-7	3,3'-Dimethylbenzidine
U096	80-15-9	alpha,alpha-Dimethyl-benzylhydroperoxide (R)
U096	80-15-9	Hydroperoxide, 1-methyl-1-phenylethyl-(R)
U097	79-44-7	Carbamic chloride, dimethyl-
U097	79-44-7	Dimethylcarbamoyl chloride
U098	57-14-7	1,1-Dimethylhydrazine
U098	57-14-7	Hydrazine, 1,1-dimethyl-
U099	540-73-8	1,2-Dimethylhydrazine

Table 4. Toxic Wastes (Numerical Order by EPA Hazardous Waste Number)		
EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste (Substance)
U099	540-73-8	Hydrazine, 1,2-dimethyl-
U101	105-67-9	2,4-Dimethylphenol
U101	105-67-9	Phenol, 2,4-dimethyl-
U102	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester
U102	131-11-3	Dimethyl phthalate
U103	77-78-1	Dimethyl sulfate
U103	77-78-1	Sulfuric acid, dimethyl ester
U105	121-14-2	Benzene, 1-methyl-2,4-dinitro-
U105	121-14-2	2,4-Dinitrotoluene
U106	606-20-2	Benzene, 2-methyl-1,3-dinitro-
U106	606-20-2	2,6-Dinitrotoluene
U107	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl ester
U107	117-84-0	Di-n-octyl phthalate
U108	123-91-1	1,4-Diethyleneoxide
U108	123-91-1	1,4-Dioxane
U109	122-66-7	1,2-Diphenylhydrazine
U109	122-66-7	Hydrazine, 1,2-diphenyl-
U110	142-84-7	Dipropylamine (I)
U110	142-84-7	1-Propanamine, N-propyl-(I)
U111	621-64-7	Di-n-propylnitrosamine
U111	621-64-7	1-Propanamine, N-nitroso- N-propyl-
U112	141-78-6	Acetic acid, ethyl ester (I)
U112	141-78-6	Ethyl acetate (I)
U113	140-88-5	Ethyl acrylate (I)
U113	140-88-5	2-Propenoic acid, ethyl ester (I)
U114	¹ 111-54-6	Carbamodithioic acid, 1,2-ethanediybis-, salts and esters
U114	¹ 111-54-6	Ethylenebisdithiocarbamic acid, salts and esters
U115	75-21-8	Ethylene oxide (I,T)
U115	75-21-8	Oxirane (I,T)
U116	96-45-7	Ethylene thiourea
U116	96-45-7	2-Imidazolidinethione
U117	60-29-7	Ethane, 1,1'-oxybis-(I)
U117	60-29-7	Ethyl ether (I)
U118	97-63-2	Ethyl methacrylate
U118	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester
U119	62-50-0	Ethyl methanesulfonate
U119	62-50-0	Methanesulfonic acid, ethyl ester
U120	206-44-0	Fluoranthene
U121	75-69-4	Methane, trichlorofluoro-
U121	75-69-4	Trichloromonofluoromethane
U122	50-00-0	Formaldehyde
U123	64-18-6	Formic acid (C,T)
U124	110-00-9	Furan (I)
U124	110-00-9	Furfuran (I)
U125	98-01-1	2-Furancarboxaldehyde (I)
U125	98-01-1	Furfural (I)
U126	765-34-4	Glycidylaldehyde
U126	765-34-4	Oxiranecarboxyaldehyde
U127	118-74-1	Benzene, hexachloro-
U127	118-74-1	Hexachlorobenzene
U128	87-68-3	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-
U128	87-68-3	Hexachlorobutadiene
U129	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha,5alpha,6beta)-
U129	58-89-9	Lindane
U130	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-
U130	77-47-4	Hexachlorocyclopentadiene
U131	67-72-1	Ethane, hexachloro-
U131	67-72-1	Hexachloroethane
U132	70-30-4	Hexachlorophene
U132	70-30-4	Phenol, 2,2'-methylenebis[3,4,6- trichloro-
U133	302-01-2	Hydrazine (R,T)

Title 33, Part V

Table 4. Toxic Wastes (Numerical Order by EPA Hazardous Waste Number)		
EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste (Substance)
U134	7664-39-3	Hydrofluoric acid (C,T)
U134	7664-39-3	Hydrogen fluoride (C,T)
U135	7783-06-4	Hydrogen sulfide
U135	7783-06-4	Hydrogen Sulfide H ₂ S
U136	75-60-5	Arsinic acid, dimethyl-
U136	75-60-5	Cacodylic acid
U137	193-39-5	Indeno[1,2,3-cd]pyrene
U138	74-88-4	Methane, iodo-
U138	74-88-4	Methyl iodide
U140	78-83-1	Isobutyl alcohol (I,T)
U140	73-83-1	1-Propanol, 2-methyl-(I,T)
U141	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-
U141	120-58-1	Isosafrole
U142	143-50-0	Kepone
U142	143-50-0	1,3,4-Metheno-2H-cyclobuta- [cd]pentalen-2-one, 1,1a,3,3a,4,5,5,5a, 5b,6- decachlorooctahydro-
U143	303-34-4	2-Butenoic acid, 2-methyl-, 7-[[2,3- dihydroxy-2-(1-methoxyethyl)-3- methyl-1-oxobutoxy]methyl]- 2,3,5,7a-tetrahydro-1H-pyrrolizin- 1-yl ester, [1S-[1alpha(Z), 7(2S*,3R*), 7aalpha]]-
U143	303-34-4	Lasiocarpine
U144	301-04-2	Acetic acid, lead (2+) salt
U144	301-04-2	Lead acetate
U145	7446-27-7	Lead phosphate
U145	7446-27-7	Phosphoric acid, lead(2+)salt(2:3)
U146	1335-32-6	Lead,bis(acetato-O) tetrahydroxytri-
U146	1335-32-6	Lead subacetate
U147	108-31-6	2,5-Furandione
U147	108-31-6	Maleic anhydride
U148	123-33-1	Maleic hydrazide
U148	123-33-1	3,6-Pyridazinedione, 1,2-dihydro-
U149	109-77-3	Malononitrile
U149	109-77-3	Propanedinitrile
U150	148-82-3	Melphalan
U150	148-82-3	L-Phenylalanine, 4-[bis (2-chloroethyl)amino]-
U151	7439-97-6	Mercury
U152	126-98-7	Methacrylonitrile (I,T)
U152	126-98-7	2-Propenenitrile, 2-methyl-(I,T)
U153	74-93-1	Methanethiol (I,T)
U153	74-93-1	Thiomethanol (I,T)
U154	67-56-1	Methanol (I)
U154	67-56-1	Methyl alcohol (I)
U155	91-80-5	1,2-Ethanediamine, -N,N-dimethyl-N'-2- pyridinyl-N'-(2-thienylmethyl)-
U155	91-80-5	Methapyrilene
U156	79-22-1	Carbonochloridic acid, methyl ester (I,T)
U156	79-22-1	Methyl chlorocarbonate (I,T)
U157	56-49-5	Benz (j) aceanthrylene, 1,2-dihydro-3-methyl-
U157	56-49-5	3-Methylcholanthrene
U158	101-14-4	Benzenamine, 4,4'-methylenebis [2-chloro-
U158	101-14-4	4,4'-Methylenebis(2-chloroaniline)
U159	78-93-3	2-Butanone (I,T)
U159	78-93-3	Methyl ethyl ketone (MEK) (I,T)
U160	1338-23-4	2-Butanone, peroxide (R,T)
U160	1338-23-4	Methyl ethyl ketone peroxide (R,T)
U161	108-10-1	Methyl isobutyl ketone (I)
U161	108-10-1	4-Methyl-2-pentanone (I)
U161	108-10-1	Pentanol, 4-methyl-
U162	80-62-6	Methyl methacrylate (I,T)
U162	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester (I,T)
U163	70-25-7	Guanidine, N-methyl-N'-nitro-N-nitroso-
U163	70-25-7	MNNG
U164	56-04-2	Methylthiouracil
U164	56-04-2	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-
U165	91-20-3	Naphthalene

Table 4. Toxic Wastes (Numerical Order by EPA Hazardous Waste Number)		
EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste (Substance)
U166	130-15-4	1,4-Naphthalenedione
U166	130-15-4	1,4-Naphthoquinone
U167	134-32-7	1-Naphthalenamine
U167	134-32-7	alpha-Naphthylamine
U168	91-59-8	2-Naphthalenamine
U168	91-59-8	beta-Naphthylamine
U169	98-95-3	Benzene, nitro-
U169	98-95-3	Nitrobenzene (I,T)
U170	100-02-7	p-Nitrophenol
U170	100-02-7	Phenol, 4-nitro-
U171	79-46-9	2-Nitropropane (I,T)
U171	79-46-9	Propane, 2-nitro-(I,T)
U172	924-16-3	1-Butanamine, N-butyl-N-nitroso-
U172	924-16-3	N-Nitrosodi-n-butylamine
U173	1116-54-7	Ethanol,2,2'-(nitrosoimino)bis-
U173	1116-54-7	N-Nitrosodiethanolamine
U174	55-18-5	Ethanamine, N-ethyl-N-nitroso-
U174	55-18-5	N-Nitrosodiethylamine
U176	759-73-9	N-Nitroso-N-ethylurea
U176	759-73-9	Urea, N-ethyl-N-nitroso-
U177	684-93-5	N-Nitroso-N-methylurea
U177	684-93-5	Urea, N-methyl-N-nitroso-
U178	615-53-2	Carbamic acid, methylnitroso-,ethyl ester
U178	615-53-2	N-Nitroso-N-methylurethane
U179	100-75-4	N-Nitrosopiperidine
U179	100-75-4	Piperidine,1-nitroso-
U180	930-55-2	N-Nitrosopyrrolidine
U180	930-55-2	Pyrrolidine, 1-nitroso-
U181	99-55-8	Benzenamine, 2-methyl-5-nitro-
U181	99-55-8	5-Nitro-o-toluidine
U182	123-63-7	Paraldehyde
U182	123-63-7	1,3,5-Trioxane, 2,4,6-trimethyl-
U183	608-93-5	Benzene, pentachloro
U183	608-93-5	Pentachlorobenzene
U184	76-01-7	Ethane, pentachloro-
U184	76-01-7	Pentachloroethane
U185	82-68-8	Benzene, pentachloronitro-
U185	82-68-8	Pentachloronitrobenzene (PCNB)
U186	504-60-9	1-Methylbutadiene (I)
U186	504-60-9	1,3-Pentadiene (I)
U187	62-44-2	Acetamide, N-(4-ethoxyphenyl)-
U187	62-44-2	Phenacetin
U188	108-95-2	Phenol
U189	1314-80-3	Phosphorus sulfide (R)
U189	1314-80-3	Sulfur phosphide (R)
U190	85-44-9	1,3-Isobenzofurandione
U190	85-44-9	Phthalic anhydride
U191	109-06-8	2-Picoline
U191	109-06-8	Pyridine, 2-methyl-
U192	23950-58-5	Benzamide,3,5-dichloro-N-(1,1-dimethyl-2 propynyl)-
U192	23950-58-5	Pronamide
U193	1120-71-4	1,2-Oxathiolane, 2,2-dioxide
U193	1120-71-4	1,3-Propane sultone
U194	107-10-8	1-Propanamine (I,T)
U194	107-10-8	n-Propylamine (I,T)
U196	110-86-1	Pyridine
U197	106-51-4	p-Benzoquinone
U197	106-51-4	2,5-Cyclohexadiene-1,4-dione
U200	50-55-5	Reserpine
U200	50-55-5	Yohimban-16-carboxylic acid,11,17-dimethoxy-18- [(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester,(3beta, 16beta,17alpha,18beta,20alpha)-

Title 33, Part V

Table 4. Toxic Wastes (Numerical Order by EPA Hazardous Waste Number)		
EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste (Substance)
U201	108-46-3	1,3-Benzenediol
U201	108-46-3	Resorcinol
U202	¹ 81-07-2	1,2-Benzisothiazol-3 (2H)- one,1,1,-dioxide, and salts
U202	¹ 81-07-2	Saccharin and salts
U203	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-
U203	94-59-7	Safrole
U204	7783-00-8	Selenious acid
U204	7783-00-8	Selenium dioxide
U205	7488-56-4	Selenium sulfide
U205	7488-56-4	Selenium sulfide SeS ₂ (R,T)
U206	18883-66-4	Glucopyranose,2-deoxy-2-(3-methyl-3- nitrosoureido)-, D-
U206	18883-66-4	D-Glucose, 2-deoxy-2- [(methylnitrosoamino)- carbonyl]amino]-
U206	18883-66-4	Streptozotocin
U207	95-94-3	Benzene, 1,2,4,5-tetrachloro-
U207	95-94-3	1,2,4,5-Tetrachlorobenzene
U208	630-20-6	Ethane, 1,1,1,2-tetrachloro-
U208	630-20-6	1,1,1,2-Tetrachloroethane
U209	79-34-5	Ethane, 1,1,2,2-tetrachloro-
U209	79-34-5	1,1,2,2,-Tetrachloroethane
U210	127-18-4	Ethene, tetrachloro-
U210	127-18-4	Tetrachloroethylene
U211	56-23-5	Carbon tetrachloride
U211	56-23-5	Methane, tetrachloro-
U213	109-99-9	Furan, tetrahydro-(I)
U213	109-99-9	Tetrahydrofuran (I)
U214	563-68-8	Acetic acid, thallium(1+) salt
U214	563-68-8	Thallium(I) acetate
U215	6533-73-9	Carbonic acid, dithallium (1+) salt
U215	6533-73-9	Thallium(I) carbonate
U216	7791-12-0	Thallium (I) chloride
U216	7791-12-0	Thallium chloride TICl
U217	10102-45-1	Nitric acid, thallium(1+)salt
U217	10102-45-1	Thallium (I) nitrate
U218	62-55-5	Ethanethioamide
U218	62-55-5	Thioacetamide
U219	62-56-6	Thiourea
U220	108-88-3	Benzene, methyl-
U220	108-88-3	Toluene
U221	25376-45-8	Benzenediamine, ar-methyl-
U221	25376-45-8	Toluenediamine
U222	636-21-5	Benzenamine, 2-methyl-, hydrochloride
U222	636-21-5	o-Toluidine hydrochloride
U223	26471-62-5	Benzene,1,3-diisocyanatomethyl-(R,T)
U223	26471-62-5	Toluene diisocyanate (R,T)
U225	75-25-2	Bromoform
U225	75-25-2	Methane, tribromo-
U226	71-55-6	Ethane, 1,1,1-trichloro-
U226	71-55-6	Methyl chloroform
U226	71-55-6	1,1,1-Trichloroethane
U227	79-00-5	Ethane, 1,1,2-trichloro-
U227	79-00-5	1,1,2-Trichloroethane
U228	79-01-6	Ethene, trichloro-
U228	79-01-6	Trichloroethylene
U234	99-35-4	Benzene, 1,3,5-trinitro-
U234	99-35-4	1,3,5-Trinitrobenzene (R,T)
U235	126-72-7	1-Propanol, 2,3-dibromo-, phosphate (3:1)
U235	126-72-7	Tris(2,3-dibromopropyl) phosphate
U236	72-57-1	2,7-Naphthalenedisulfonic acid,3,3'-[(3,3'-dimethyl- [1,1'-biphenyl]-4,4'-diyl) bis(azo)bis[5-amino-4-hydroxy]-,tetrasodium salt
U236	72-57-1	Trypan blue
U237	66-75-1	2,4-(1H,3H)-Pyrimidinedione, 5- [bis(2-chloroethyl) amino]-

Table 4. Toxic Wastes
(Numerical Order by EPA Hazardous Waste Number)

EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste (Substance)
U237	66-75-1	Uracil mustard
U238	51-79-6	Carbamic acid, ethyl ester
U238	51-79-6	Ethyl carbamate (urethane)
U239	1330-20-7	Benzene, dimethyl-(I,T)
U239	1330-20-7	Xylene (I)
U240	¹ 94-75-7	Acetic acid, (2,4-dichloro- phenoxy)-, salts and esters
U240	¹ 94-75-7	2,4-D, salts and esters
U243	1888-71-7	Hexachloropropene
U243	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-
U244	137-26-8	Thioperoxydicarbonic diamide [(H ₂ N)C(S)] ₂ S ₂ , tetramethyl-
U244	137-26-8	Thiram
U246	506-68-3	Cyanogen bromide (CN) Br
U247	72-43-5	Benzene, 1, 1'-(2,2,2-trichloroethylidene)bis[4-methoxy-
U247	72-43-5	Methoxychlor
U248	¹ 81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenyl-butyl)-, and salts, when present at concentrations of 0.3 percent or less
U248	¹ 81-81-2	Warfarin, and salts, when present at concentrations of 0.3 percent or less
U249	1314-84-7	Zinc phosphide Zn ₃ P ₂ , when present at concentrations of 10 percent or less
U271	17804-35-2	Benomyl
U271	17804-35-2	Carbamic acid, [1-[(butylamino)carbonyl]-1H- benzimidazol-2-yl]-, methyl ester
U278	22781-23-3	Bendiocarb
U278	22781-23-3	1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate
U279	63-25-2	Carbaryl
U279	63-25-2	1-Naphthalenol, methylcarbamate
U280	101-27-9	Barban
U280	101-27-9	Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester
U328	95-53-4	Benzenamine, 2-methyl-
U328	95-53-4	o-Toluidine
U353	106-49-0	Benzenamine, 4-methyl-
U353	106-49-0	p-Toluidine
U359	110-80-5	Ethanol,2-ethoxy-
U359	110-80-5	Ethylene glycol monoethyl ether
U364	22961-82-6	Bendiocarb phenol
U364	22961-82-6	1,3-Benzodioxol-4-ol, 2,2-dimethyl-
U367	1563-38-8	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-
U367	1563-38-8	Carbofuran phenol
U372	10605-21-7	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester
U372	10605-21-7	Carbendazim
U373	122-42-9	Carbamic acid, phenyl-, 1-methylethyl ester
U373	122-42-9	Propham
U387	52888-80-9	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester
U387	52888-80-9	Prosulfocarb
U389	2303-17-5	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester
U389	2303-17-5	Triallate
U394	30558-43-1	A2213
U394	30558-43-1	Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-2-oxo-, methyl ester
U395	5952-26-1	Diethylene glycol, dicarbamate
U395	5952-26-1	Ethanol, 2,2'-oxybis-, dicarbamate
U404	121-44-8	Ethanamine, N,N-diethyl-
U404	121-44-8	Triethylamine
U409	23564-05-8	Carbamic acid, [1,2-phenylenebis (iminocarbonothioyl)]bis-, dimethyl ester
U409	23564-05-8	Thiophanatemethyl
U410	59669-26-0	Ethanimidothioic acid, N,N'-[thiobis[(methylimino) carbonyloxy]]bis-,dimethyl ester
U410	59669-26-0	Thiodicarb
U411	114-26-1	Phenol, 2-(1-methylethoxy)-, methylcarbamate
U411	114-26-1	Propoxur
See F027	93-76-5	Acetic acid, (2,4,5-trichlorophenoxy)-
See F027	87-86-5	Pentachlorophenol
See F027	87-86-5	Phenol, pentachloro-
See F027	58-90-2	Phenol, 2,3,4,6-tetrachloro-
See F027	95-95-4	Phenol, 2,4,5-trichloro-

Table 4. Toxic Wastes (Numerical Order by EPA Hazardous Waste Number)		
EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste (Substance)
See F027	88-06-2	Phenol, 2,4,6-trichloro-
See F027	93-72-1	Propanoic acid,2-(2,4,5-trichlorophenoxy)-
See F027	93-72-1	Silvex (2,4,5-TP)
See F027	93-76-5	2,4,5-T
See F027	58-90-2	2,3,4,6-Tetrachlorophenol
See F027	95-95-4	2,4,5-Trichlorophenol
See F027	88-06-2	2,4,6-Trichlorophenol
¹ CAS Number given for parent compound only.		

G. Constituents that Serve as a Basis for Listing Hazardous Waste. Table 6 of this Section lists constituents that serve as a basis for listing hazardous waste.

Table 6. Table of Constituents that Serve as a Basis for Listing Hazardous Waste	
* * *	
[See Prior Text in EPA Hazardous Waste Number F001 – EPA Hazardous Waste Number F038]	
EPA Hazardous Waste Number F039	
All constituents for which treatment standards are specified for multi-source leachate (wastewaters and nonwastewaters) under LAC 33:V.2299, Table 2	
* * *	
[See Prior Text in EPA Hazardous Waste Number K001 – EPA Hazardous Waste Number K181]	

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 11:1139 (December 1985), LR 12:319 (May 1986), LR 13:84 (February 1987), LR 13:433 (August 1987), LR 14:426 (July 1988), LR 14:791 (November 1988), LR 15:182 (March 1989), LR 16:220 (March 1990), LR 16:614 (July 1990), LR 16:1057 (December 1990), LR 17:369 (April 1991), LR 17:478 (May 1991), LR 17:658 (July 1991), LR 18:723 (July 1992), LR 18:1256 (November 1992), LR 18:1375 (December 1992), LR 20:1000 (September 1994), LR 21:266 (March 1995), LR 21:944 (September 1995), LR 22:829, 840 (September 1996), amended by the Office of Waste Services, Hazardous Waste Division, LR 23:1522 (November 1997), LR 24:321 (February 1998), LR 24:686 (April 1998), LR 24:1754 (September 1998), LR 25:487 (March 1999), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 27:304 (March 2001), LR 27:715 (May 2001), LR 28:1009 (May 2002), LR 29:324 (March 2003), amended by the Office of Environmental Assessment, LR 31:1573 (July 2005), amended by the Office of the Secretary, Legal Affairs Division, LR 32:831 (May 2006), LR 33:1627 (August 2007), LR 34:635 (April 2008), LR 34:1020 (June 2008).

§4903. Category II Hazardous Wastes

A. – B. ...

1. It is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume, and has a flash point less than 60°C (140°F), as determined by a Pensky-Martens Closed Cup Tester, using the test method specified in ASTM Standard D-93-79 or D-93-80, as incorporated by reference in LAC 33:V.110, or by a

Setaflash Closed Cup Tester, using the test method specified in ASTM Standard D 3278-78, as incorporated by reference in LAC 33:V.110.

2. ...

3. It is an ignitable compressed gas.

a. The term *compressed gas* designates any material or mixture having in the container an absolute pressure exceeding 40 p.s.i. at 70°F or, regardless of the pressure at 70°F, having an absolute pressure exceeding 104 p.s.i. at 130°F; or any liquid flammable material having a vapor pressure exceeding 40 p.s.i. absolute at 100°F as determined by ASTM Test D-323.

b. A compressed gas shall be characterized as ignitable if any one of the following occurs:

i. either a mixture of 13 percent or less (by volume) with air forms a flammable mixture or the flammable range with air is wider than 12 percent regardless of the lower limit. These limits shall be determined at atmospheric temperature and pressure. The method of sampling and test procedure shall be acceptable to the Bureau of Explosives and approved by the Director, Pipeline and Hazardous Materials Technology, U.S. Department of Transportation (see Note 2 to this Subsection);

ii. using the Bureau of Explosives' Flame Projection Apparatus (see Note 1 to this Subsection), the flame projects more than 18 inches beyond the ignition

source with valve opened fully, or the flame flashes back and burns at the valve with any degree of valve opening;

iii. using the Bureau of Explosives' Open Drum Apparatus (see Note 1 to this Subsection), there is any significant propagation of flame away from the ignition source; or

iv. using the Bureau of Explosives' Closed Drum Apparatus (see Note 1 to this Subsection), there is any explosion of the vapor-air mixture in the drum.

4. It is an oxidizer. An oxidizer, for the purposes of these regulations, is a substance, such as a chlorate, permanganate, inorganic peroxide, or nitrate, that yields oxygen readily to stimulate the combustion of organic matter (see Note 4 to this Subsection). An organic compound containing the bivalent -O-O- structure and that may be considered a derivative of hydrogen peroxide where one or more of the hydrogen atoms have been replaced by organic radicals must be classed as an organic peroxide unless:

a. the material meets the definition of a Class A explosive or a Class B explosive, as defined in LAC 33:V.4903.D.8, in which case it must be classed as an explosive;

b. the material is forbidden to be offered for transportation according to 49 CFR 172.101 or 49 CFR 173.21;

c. it is determined that the predominant hazard of the material containing an organic peroxide is other than that of an organic peroxide; or

d. according to data on file with the Pipeline and Hazardous Materials Safety Administration in the U.S. Department of Transportation (see Note 3 to this Subsection), it has been determined that the material does not present a hazard in transportation.

[Note 1: A description of the Bureau of Explosives' Flame Projection Apparatus, Open Drum Apparatus, Closed Drum Apparatus, and method of tests may be procured from the Bureau of Explosives.]

[Note 2: As part of a U.S. Department of Transportation (DOT) reorganization, the Office of Hazardous Materials Technology (OHMT), which was the office listed in the 1980 publication of 49 CFR 173.300 for the purposes of approving sampling and test procedures for a flammable

gas, ceased operations on February 20, 2005. OHMT programs have moved to the Pipeline and Hazardous Materials Safety Administration (PHMSA) in the DOT.]

[Note 3: As part of a U.S. Department of Transportation (DOT) reorganization, the Research and Special Programs Administration (RSPA), which was the office listed in the 1980 publication of 49 CFR 173.151a for the purposes of determining that a material does not present a hazard in transport, ceased operations on February 20, 2005. RSPA programs have moved to the Pipeline and Hazardous Materials Safety Administration (PHMSA) in the DOT.]

[Note 4: The DOT regulatory definition of an oxidizer was contained in §173.151 of 49 CFR, and the definition of an organic peroxide was contained in paragraph 173.151a. An organic peroxide is a type of oxidizer.]

C. ...

1. It is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5, as determined by a pH meter using Method 9040C in *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, EPA Publication SW-846, as incorporated by reference in LAC 33:V.110.

2. It is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55°C (130°F) as determined by Method 1110A in *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, EPA Publication SW-846, and as incorporated by reference in LAC 33:V.110.

D. – F. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 16:1057 (December 1990), LR 17:369 (April 1991), LR 18:723 (July 1992), LR 18:1256 (November 1992), LR 22:829 (September 1996), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 29:325 (March 2003), amended by the Office of the Secretary, Legal Affairs Division, LR 34:644 (April 2008), LR 34:1020 (June 2008).

§4909. Comparable/Syngas Fuel Exclusion

A. – C.5. ...

Table 7: Detection and Detection Limit Values for Comparable Fuel Specification					
Chemical Name	CAS Number	Composite Value (mg/kg)	Heating Value (Btu/lb)	Concentration Limit (mg/kg at required 10,000 Btu/lb)	Minimum Required Detection Limit (mg/kg)
* * *					
[See Prior Text in Total Nitrogen as N – Cyanide, total]					
Metals					
* * *					
[See Prior Text in Antimony, total – Thallium, total]					
Hydrocarbons					
* * *					
[See Prior Text in Benzo[a]anthracene – Toluene]					
Oxygenates					
* * *					
[See Prior Text in Acetophenone – Safrole]					
Sulfonated Organics					
* * *					
[See Prior Text in Carbon disulfide – O,O,O-Triethyl phosphorothioate]					
Nitrogenated Organics					
* * *					
[See Prior Text in Acetonitrile [Methyl cyanide] – 1,3,5-Trinitrobenzene, [sym-Trinitrobenzene]]					
Halogenated Organics					
* * *					
[See Prior Text in Allyl chloride – 1,1-Dichloroethylene [Vinylidene chloride]]					
Dichloromethoxy ethane [Bis(2-chloroethoxy)methane]	111-91-1	Nondetect		Nondetect	2400
* * *					
[See Prior Text in 2,4-Dichlorophenol – Vinyl Chloride]					
Notes: NA – Not Applicable					

D. – D.6. ...

7. Waste Analysis Plans. The generator of a comparable/syngas fuel shall develop and follow a written waste analysis plan that describes the procedures for sampling and analysis of the hazardous waste to be excluded. The plan shall be followed and retained at the facility excluding the waste.

7.a. - 13. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Waste Services, Hazardous Waste Division, LR 25:489 (March 1999), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 27:305 (March 2001), LR 28:1010 (May 2002), amended by the Office of the Secretary, Legal Affairs Division, LR 34:644 (April 2008), LR 34:1021 (June 2008).

§4911. Conditional Exclusion for Used, Broken Cathode Ray Tubes (CRTs) Undergoing Recycling**A. – A.1.b. ...**

2. Labeling. Each container in which used, broken CRT material is contained shall be labeled or marked clearly with one of the following phrases: "Used Cathode Ray Tube(s)—Contains Leaded Glass" or "Leaded Glass from

Televisions or Computers." It shall also be labeled: "Do Not Mix with Other Glass Materials."

3. Transportation. The used, broken CRTs shall be transported in a container meeting the requirements of Subparagraph A.1.b and Paragraph A.2 of this Section.

4. Speculative Accumulation and Use Constituting Disposal. The used, broken CRTs are subject to the limitations on speculative accumulation as defined in LAC 33:V.109. If they are used in a manner constituting disposal, they must comply with the applicable requirements of LAC 33:V.4139 and 4141 instead of the requirements of this Section.

5. Exports. In addition to the applicable conditions specified in Paragraphs A.1-4 of this Section, exports of used, broken CRTs must comply with 40 CFR 261.39(a)(5).

B. Requirements for Processing of Used, Broken CRTs. Used, broken CRTs undergoing *CRT processing* as defined in LAC 33:V.109 are not solid wastes if they meet the following requirements.

1. Storage. Used, broken CRTs undergoing processing are subject to the requirements of Paragraphs A.1, 2, and 4 of this Section.

2. Processing. All CRTs shall be processed within a building with a roof, floor, and walls. No activities may be performed that use temperatures high enough to volatilize lead from CRTs.

C. Processed CRT Glass Sent to CRT Glass Making or Lead Smelting. Glass removed from used CRTs that is destined for recycling at a CRT glass manufacturer or a lead smelter after processing is not a solid waste unless it is speculatively accumulated as defined in LAC 33:V.109. Imported, processed glass from CRTs is subject to these requirements as soon as it enters this state.

D. – E. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq. and in particular R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of the Secretary, Legal Affairs Division, LR 31:3122 (December 2005), amended LR 34:645 (April 2008).

§4913. Conditional Exclusion for Used, Intact Cathode Ray Tubes (CRTs) Exported for Recycling

A. Used, intact CRTs exported for recycling are not solid wastes if they meet the notice and consent conditions of LAC 33:V.4911.A.5, and if they are not speculatively accumulated as defined in LAC 33:V.109.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq. and in particular R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of the Secretary, Legal Affairs Division, LR 34:645 (April 2008).

§4915. Notification and Recordkeeping for Used, Intact Cathode Ray Tubes (CRTs) Exported for Reuse

A. Persons who export used, intact CRTs for reuse must send a one-time notification to the EPA's Regional Administrator. The notification must include a statement that the notifier plans to export used, intact CRTs for reuse; the notifier's name, address, and EPA ID number (if applicable); and the name and phone number of a contact person.

B. Persons who export used, intact CRTs for reuse must keep copies of normal business records, such as contracts, demonstrating that each shipment of exported CRTs will be reused. This documentation must be retained for a period of at least three years from the date the CRTs were exported.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq. and in particular R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of the Secretary, Legal Affairs Division, LR 34:645 (April 2008).

§4999. Appendices—Appendix A, B, C, D, E, and F

Appendix A. Reserved

Appendix B. Reserved

Appendix C. Extraction Procedure (EP) Toxicity Test Method and Structural Integrity Test

(Method 1310B)

[NOTE: The EP (Method 1310B) is published in *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, EPA Publication SW-846, as incorporated by reference in LAC 33:V.110.]

Appendix D. Representative Sampling Methods

The methods and equipment used for sampling waste materials will vary with the form and consistency of the waste materials to be sampled. Samples collected using the sampling protocols listed below, for sampling waste with properties similar to the indicated materials, will be considered by the department to be representative of the waste.

Containerized Liquid Wastes—"COLIWASA."

* * *

Liquid Waste in Pits, Ponds, Lagoons, and Similar Reservoirs—"Pond Sampler."

[NOTE: These protocols are described in *Samplers and Sampling Procedures for Hazardous Waste Streams*, EPA 600/2-80-018, January 1980.]

Appendix E. – Appendix E, Table 1. ...

Appendix F. Recordkeeping Instructions

A. The recordkeeping provisions of LAC 33:V.4357 specify that an owner or operator must keep a written operating record at his facility. This appendix provides additional instructions for keeping portions of the operating record. See LAC 33:V.4357.B for additional recordkeeping requirements.

B. The following information concerning each hazardous waste received, treated, stored, or disposed of at the facility must be recorded, as it becomes available, and maintained in the operating record until closure of the facility, in the following manner:

1. a description of the waste, identified by its common name and the EPA hazardous waste number(s) from LAC 33:V.Chapter 49 that apply to the waste. The waste description must include the waste's physical form, i.e., liquid, sludge, solid, or contained gas. If the waste is not listed in LAC 33:V.Chapter 49, the description also must include the process that produced it (for example, "solid filter cake from production of [____], EPA Hazardous Waste Number W051"). Each hazardous waste listed in LAC 33:V.4901, and each hazardous waste characteristic defined in LAC 33:V.4903, has a four-digit EPA hazardous

waste number assigned to it. This number must be used for recordkeeping and reporting purposes. Where a hazardous waste contains more than one listed hazardous waste, or where more than one hazardous waste characteristic applies to the waste, the waste description must include all applicable EPA hazardous waste numbers;

2. the estimated or manifest-reported weight, or volume and density, where applicable, in one of the units of measure specified in Table 1:

Table 1—Units of Measure	
Unit of Measure	Code ¹
Gallons	G
Gallons per Hour	E
Gallons per Day	U
Liters	L
Liters Per Hour	H
Liters Per Day	V
Short Tons Per Hour	D
Metric Tons Per Hour	W
Short Tons Per Day	N
Metric Tons Per Day	S
Pounds Per Hour	J
Kilograms Per Hour	R
Cubic Yards	Y
Cubic Meters	C
Acres	B
Acre-feet	A
Hectares	Q
Hectare-meter	F
Btu's per Hour	I
Pounds	P
Short tons	T
Kilograms	K
Tons	M

¹ Single digit symbols are used here for data processing purposes.

3. the method(s) (by handling code(s) as specified in Table 2) and date(s) of treatment, storage, or disposal. Use the handling code(s) listed in Table 2 that most closely represents the technique(s) used at the facility to treat, store, or dispose of each quantity of hazardous waste received.

Table 2—Handling Codes for Treatment, Storage, and Disposal Methods	
Handling Code	Technique
A. Storage	
S01	Container (barrel, drum, etc.)
S02	Tank
S03	Waste Pile
S04	Surface Impoundment
S05	Drip Pad
S06	Containment Building (Storage)
S99	Other Storage (specify)
B. Treatment	
1. Thermal Treatment	
T06	Liquid injection incinerator
T07	Rotary kiln incinerator
T08	Fluidized bed incinerator
T09	Multiple hearth incinerator
T10	Infrared furnace incinerator
T11	Molten salt destructor
T12	Pyrolysis
T13	Wet air oxidation
T14	Calcination
T15	Microwave discharge
T18	Other (specify)
2. Chemical Treatment	
T19	Absorption mound
T20	Absorption field
T21	Chemical fixation
T22	Chemical oxidation
T23	Chemical precipitation
T24	Chemical reduction
T25	Chlorination
T26	Chlorinolysis
T27	Cyanide destruction
T28	Degradation
T29	Detoxification
T30	Ion exchange
T31	Neutralization
T32	Ozonation
T33	Photolysis
T34	Other (specify)
3. Physical Treatment	
a. Separation of Components	
T35	Centrifugation
T36	Clarification
T37	Coagulation
T38	Decanting
T39	Encapsulation
T40	Filtration
T41	Flocculation
T42	Flotation
T43	Foaming
T44	Sedimentation
T45	Thickening
T46	Ultrafiltration
T47	Other (specify)
b. Removal of Specific Components	
T48	Absorption-molecular sieve
T49	Activated carbon
T50	Blending
T51	Catalysis
T52	Crystallization
T53	Dialysis
T54	Distillation
T55	Electrodialysis
T56	Electrolysis
T57	Evaporation
T58	High gradient magnetic separation
T59	Leaching

Table 2—Handling Codes for Treatment, Storage, and Disposal Methods	
Handling Code	Technique
T60	Liquid ion exchange
T61	Liquid-liquid extraction
T62	Reverse osmosis
T63	Solvent recovery
T64	Stripping
T65	Sand filter
T66	Other (specify)
4. Biological Treatment	
T67	Activated sludge
T68	Aerobic lagoon
T69	Aerobic tank
T70	Anaerobic tank
T71	Composting
T72	Septic tank
T73	Spray irrigation
T74	Thickening filter
T75	Trickling filter
T76	Waste stabilization pond
T77	Other (specify)
T78-T79	[Reserved]
5. Boilers and Industrial Furnaces	
T80	Boiler
T81	Cement Kiln
T82	Lime Kiln
T83	Aggregate Kiln
T84	Phosphate Kiln
T85	Coke Oven
T86	Blast Furnace
T87	Smelting, Melting, or Refining Furnace
T88	Titanium Dioxide Chloride Process Oxidation Reactor
T89	Methane Reforming Furnace
T90	Pulping Liquor Recovery Furnace
T91	Combustion Device Used in the Recovery of Sulfur Values From Spent Sulfuric Acid
T92	Halogen Acid Furnace
T93	Other Industrial Furnaces Listed in 40 CFR 260.10 (specify)

Table 2—Handling Codes for Treatment, Storage, and Disposal Methods	
Handling Code	Technique
6. Other Treatment	
T94	Containment Building (Treatment)
C. Disposal	
D79	Underground Injection
D80	Landfill
D81	Land Treatment
D82	Ocean Disposal
D83	Surface Impoundment (to be closed as a landfill)
D99	Other Disposal (specify)
D. Miscellaneous	
X01	Open Burning/Open Detonation
X02	Mechanical Processing
X03	Thermal Unit
X04	Geologic Repository
X99	Other (specify)

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, LR 20:1000 (September 1994), amended by the Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:944 (September 1995), LR 22:830 (September 1996), amended by the Office of Waste Services, Hazardous Waste Division, LR 23:952 (August 1997), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 25:2397 (December 1999), LR 26:2509 (November 2000), LR 29:1084 (July 2003), repromulgated LR 29:1475 (August 2003), amended by the Office of Environmental Assessment, LR 30:2464 (November 2004), amended by the Office of the Secretary, Legal Affairs Division, LR 33:445 (March 2007), LR 33:825 (May 2007), LR 33:1016 (June 2007), LR 34:73 (January 2008), LR 34:1021 (June 2008).

Title 33

ENVIRONMENTAL QUALITY

Part VII. Solid Waste

Subpart 1. Solid Waste Regulations

Chapter 1. General Provisions and Definitions

§115. Definitions

A. For all purposes of these rules and regulations, the terms defined in this Section shall have the following meanings, unless the context of use clearly indicates otherwise.

* * *

Liquid Waste—any waste material that is determined to contain free liquids as defined by Method 9095B (Paint Filter Liquids Test), as described in *Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods* (EPA Pub. SW-846), which is incorporated by reference. A suffix of “B” in the method number indicates revision two (the method has been revised twice). Method 9095B is dated November 2004.

* * *

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Solid Waste Division, LR 19:187 (February 1993), amended LR 22:279 (April 1996), amended by the Office of Waste Services, Solid Waste Division, LR 23:1145 (September 1997), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2514, 2609 (November 2000), amended by the Office of Environmental Assessment, LR 31:1576 (July 2005), amended by the Office of the Secretary, Legal Affairs Division, LR 33:1019 (June 2007), LR 34:1023 (June 2008).

Chapter 3. Scope and Mandatory Provisions of the Program

§301. Exempted Waste

A. - A.2.d.iv. ...

e. source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.);

f. compost produced by an individual for his own beneficial use, as provided in R.S. 30:2416(G);

g. uncontaminated scrap metal materials that are purchased for resale to be recycled or reused and are not destined for disposal; and

h. automotive fluff that results from the shredding of automobiles by a scrap metal recycling facility authorized under the laws of the state of Louisiana and from which metals have been recovered to the maximum extent practicable by the scrap metal recycling facility.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Solid Waste Division, LR 19:187 (February 1993), amended LR 22:279 (April 1996), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2515 (November 2000), LR 28:780 (April 2002), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2485 (October 2005), LR 33:1027 (June 2007), LR 33:2140 (October 2007), LR 33:2364 (November 2007), LR 34:612 (April 2008).

Chapter 5. Solid Waste Management System

Subchapter A. General Standards for Nonpermitted Facilities [Formerly Chapter 7.Subchapter A]

§503. Standards Governing Solid Waste Accumulation and Storage [Formerly §703]

A. Solid Waste Accumulation

1. ...
2. Containers used for solid waste shall:

- a. prevent access by rodents and insects;
- b. minimize the escape of odors to the maximum extent possible; and
- c. keep out water and prevent leakage.

A.3. - C.2. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular R.S. 30:2154.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of the Solid and Hazardous Waste, Solid Waste Division, LR 19:187 (February 1993), amended by the Office of the Secretary, Legal Affairs Division, LR 33:1033 (June 2007), LR 34:613 (April 2008).

§508. Standards Governing Non-Processing Transfer Stations for Solid Waste

A. - A.4. ...

B. New facilities in which construction has commenced after June 20, 2007, shall comply with a buffer zone requirement of not less than 200 feet between the facility and the property line. Facilities transferring only nonputrescible waste shall comply with a buffer zone requirement of not less than 50 feet between the facility and the property line. A reduction in the buffer zone requirement shall be allowed only with the permission, in the form of a notarized affidavit, of all adjoining landowners. A copy of the notarized affidavit waiving the 200-foot or 50-foot buffer zone requirement shall be entered in the mortgage and conveyance records of the parish or parishes in which the adjoining landowners' properties are located. The affidavit shall be maintained with the records of the facility. No storage of solid waste shall occur within a facility's buffer zone.

C. - M. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of the Secretary, Legal Affairs Division, LR 33:1034 (June 2007), amended LR 33:2142 (October 2007), LR 34:613 (April 2008).

Chapter 7. Solid Waste Standards

Subchapter A. Landfills, Surface Impoundments, Landfarms

§709. Standards Governing Type I and II Solid Waste Disposal Facilities [Formerly some of the provisions in Subsections A and B existed in §521.]

A. - B.2.d. ...

3. Buffer Zones

a. Buffer zones of not less than 200 feet shall be provided between the facility and the property line. A reduction in this requirement shall be allowed only with the permission, in the form of a notarized affidavit, of all adjoining landowners. A copy of the notarized affidavit waiving the buffer zone requirement shall be entered in the mortgage and conveyance records of the parish or parishes for the adjoining landowners' properties. Buffer zone requirements may be waived or modified by the administrative authority for areas of landfills that have been closed in accordance with these regulations and for existing facilities.

B.3.b. - E. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Solid Waste Division, LR 19:187 (February 1993), repromulgated LR 19:1315 (October 1993), amended by the Office of the Secretary, LR 24:2250 (December 1998), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2521 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2490 (October 2005), LR 33:1045 (June 2007), LR 34:613 (April 2008).

Subchapter B. Solid Waste Processors

§717. Standards Governing All Type I-A and II-A Solid Waste Processors

A. - B.2.d. ...

3. Buffer Zones

a. Buffer zones of not less than 200 feet shall be provided between the facility and the property line. A reduction in this requirement shall be allowed only with the permission, in the form of a notarized affidavit, of all adjoining landowners. A copy of the notarized affidavit waiving the buffer zone requirement shall be entered in the mortgage and conveyance records of the parish or parishes for the adjoining landowners' properties. Buffer zone

requirements may be waived or modified by the administrative authority for areas of processing facilities that have been closed in accordance with these regulations and for existing facilities.

B.3.b. - I.3. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Solid Waste Division, LR 19:187 (February 1993), amended by the Office of the Secretary, LR 24:2252 (December 1998), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2526, 2610 (November 2000), repromulgated LR 27:704 (May 2001), amended by the Office of Environmental Assessment, LR 30:2025 (September 2004), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2494 (October 2005), LR 33:1061 (June 2007), LR 33:2148 (October 2007), LR 34:613 (April 2008).

Subchapter C. Minor Processing and Disposal Facilities

§719. Standards Governing All Type III Processing and Disposal Facilities [Formerly some of the provisions in Subsections A, B, and E existed in §521.]

A. - B.2.d. ...

3. Buffer Zones

a. Buffer zones of not less than 50 feet shall be provided between the facility and the property line. A reduction in this requirement shall be allowed only with the permission, in the form of a notarized affidavit, of all adjoining landowners. A copy of the notarized affidavit waiving the buffer zone requirement shall be entered in the mortgage and conveyance records of the parish or parishes for the adjoining landowners' properties. Buffer zone requirements may be waived or modified by the administrative authority for areas of woodwaste/construction/demolition-debris landfills that have been closed in accordance with these regulations and for existing facilities. Notwithstanding this Paragraph, Type III air curtain destructors and composting facilities that receive putrescible, residential, or commercial waste shall meet the buffer zone requirements in LAC 33:VII.717.B.3. In addition, air curtain destructors shall maintain at least a 1,000-foot buffer from any dwelling other than a dwelling or structure located on the property on which the burning is conducted (unless the appropriate notarized affidavit waivers are obtained).

B.3.b. - E.2. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Solid Waste Division, LR 19:187 (February 1993), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2527 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2495 (October 2005),

LR 33:1065 (June 2007), LR 33:2148 (October 2007), LR 34:613 (April 2008).

Chapter 30. Appendices

§3005. Groundwater Sampling and Analysis Plan—Appendix C

Groundwater Sampling and Analysis Plan

A. – G. ...

Table 1	
Detection Monitoring Parameters	
Common Name ¹	CAS RN ²
Inorganic Constituents	
* * *	
[See prior text in (1) - (15)]	
Organic Constituents	
* * *	
[See prior text in (16) - (62)]	

NOTES:

¹ Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals.

² Chemical Abstracts Service registry number. Where "Total" is entered, all species in the groundwater that contain this element are included.

Table 2		
Assessment Monitoring Parameters		
Common Name ¹	CAS RN ²	Chemical Abstracts Service Index Name ³
Acenaphthene	83-32-9	Acenaphthylene, 1,2-dihydro-
Acenaphthylene	208-96-8	Acenaphthylene
Acetone	67-64-1	2-Propanone
Acetonitrile; Methyl cyanide	75-05-8	Acetonitrile
Acetophenone	98-86-2	Ethanone, 1-phenyl-
2-Acetylaminofluorene; 2-AAF	53-96-3	Acetamide, N-9H-fluoren-2-yl-
Acrolein	107-02-8	2-Propenal
Acrylonitrile	107-13-1	2-Propenenitrile
Aldrin	309-00-2	1,4:5,8-Dimethanonaphthalene; 1,2,3,4,10,10-hexachloro- 1,4,4a,5,8,8a,- hexa-hydro-(1 α ,4 α ,4a β , 5 α ,8 α ,8a β)
Allyl chloride	107-05-1	1-Propene, 3-chloro-
4-Amino-biphenyl	92-67-1	[1,1'-Biphenyl]-4-amine
Anthracene	120-12-7	Anthracene
Antimony	(Total)	Antimony
Arsenic	(Total)	Arsenic
Barium	(Total)	Barium
Benzene	71-43-2	Benzene
Benzo[a]anthracene; 1,2-Benzanthracene	56-55-3	Benz[a]anthracene
Benzo[b]fluoranthene	205-99-2	Benz[e]acephenanthrylene
Benzo[k]fluoranthene	207-08-9	Benzo[k]fluoranthene
Benzo[ghi]perylene	191-24-2	Benzo[ghi]perylene
Benzo[a]pyrene	50-32-8	Benzo[a]pyrene
Benzyl alcohol	100-51-6	Benzenemethanol
Beryllium	(Total)	Beryllium
alpha-BHC	319-84-6	Cyclohexane, 1,2,3,4,5,6-hexachloro- (1 α ,2 α ,3 β ,4 α ,5 β ,6 β)-
beta-BHC	319-85-7	Cyclohexane, 1,2,3,4,5,6-hexachloro- (1 α ,2 β ,3 α ,4 β ,5 α ,6 β)-
delta-BHC	319-86-8	Cyclohexane, 1,2,3,4,5,6-hexachloro- (1 α ,2 α ,3 α ,4 β ,5 α ,6 β)-
gamma-BHC; Lindane	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexachloro- (1 α ,2 α ,3 β ,4 α ,5 α ,6 β)-
Bis(2-chloroethoxy)methane	111-91-1	Ethane, 1,1'- [methylenebis(oxy)]bis[2-chloro-
Bis(2-chloroethyl)ether	111-44-4	Ethane, 1,1'-oxybis[2-chloro-
Bis(2-chloro-1-methylethyl) ether; 2,2'-Dichlorodiisopropyl ether	108-60-1 See Note 4	Propane, 2,2'-oxybis[1-chloro-
Bis(2-ethylhexyl) phthalate	117-81-7	1,2-Benzene-dicarboxylic acid; bis(2-ethylhexyl) ester
Bromochloromethane; Chlorobromomethane	74-97-5	Methane, bromochloro-
Bromodichloromethane	75-27-4	Methane, bromodichloro-
Bromoform; Tribromomethane	75-25-2	Methane, tribromo-
4-Bromophenyl phenyl ether	101-55-3	Benzene, 1-bromo-4-phenoxy-
Butyl benzyl phthalate; Benzyl butyl phthalate	85-68-7	1,2-Benzenedicarboxylic acid; butyl phenylmethyl ester
Cadmium	(Total)	Cadmium
Carbon disulfide	75-15-0	Carbon disulfide
Carbon tetrachloride	56-23-5	Methane, tetrachloro-

Table 2		
Assessment Monitoring Parameters		
Common Name ¹	CAS RN ²	Chemical Abstracts Service Index Name ³
Chlordane	57-74-9 See Note 5	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a- hexahydro-
p-Chloroaniline	106-47-8	Benzenamine, 4-chloro-
Chlorobenzene	108-90-7	Benzene, chloro-
Chlorobenzilate	510-15-6	Benzenecetic acid, 4-chloro- α -(4-chlorophenyl)- α -hydroxy-, ethyl ester
p-Chloro-m-cresol	59-50-7	Phenol, 4-chloro-3-methyl-
Chloroethane; Ethyl chloride	75-00-3	Ethane, chloro-
Chloroform	67-66-3	Methane, trichloro-
2-Chloronaphthalene	91-58-7	Naphthalene, 2-chloro-
2-Chlorophenol	95-57-8	Phenol, 2-chloro-
4-Chlorophenyl phenyl ether	7005-72-3	Benzene, 1-chloro-4-phenoxy-
Chloroprene	126-99-8	1,3-Butadiene, 2-chloro-
Chromium	(Total)	Chromium
Chrysene	218-01-9	Chrysene
Cobalt	(Total)	Cobalt
Copper	(Total)	Copper
m-Cresol	108-39-4	Phenol, 3-methyl-
o-Cresol	95-48-7	Phenol, 2-methyl-
p-Cresol	106-44-5	Phenol, 4-methyl-
Cyanide	57-12-5	Cyanide
2,4-D; 2,4-Dichlorophenoxyacetic acid	94-75-7	Acetic acid, (2,4-dichlorophenoxy)-
4,4'-DDD	72-54-8	Benzene 1,1'-(2,2-dichloroethylidene) bis[4-chloro-
4,4'-DDE	72-55-9	Benzene, 1,1'-(dichloroethenylidene) bis[4-chloro-
4,4'-DDT	50-29-3	Benzene, 1,1'-(2,2,2-trichloroethylidene) bis[4-chloro-
Diallate	2303-16-4	Carbamothioic acid, bis(1-methyl- ethyl)-, S-(2,3-dichloro-2-propenyl) ester
Dibenz[a,h]- anthracene	53-70-3	Dibenz[a,h] anthracene
Dibenzofuran	132-64-9	Dibenzofuran
Dibromochloromethane; Chlorodibromomethane	124-48-1	Methane, dibromochloro-
1,2-Dibromo-3-chloropropane; DBCP	96-12-8	Propane, 1,2-dibromo-3-chloro-
1,2-Dibromoethane; Ethylene dibromide	106-93-4	Ethane, 1,2-dibromo-
Di-n-butyl phthalate	84-74-2	1,2-Benzene dicarboxylic acid, dibutyl ester
o-Dichlorobenzene	95-50-1	Benzene, 1,2-dichloro-
m-Dichlorobenzene	541-73-1	Benzene, 1,3-dichloro-
p-Dichlorobenzene	106-46-7	Benzene, 1,4-dichloro-
3,3'-Dichlorobenzidine	91-94-1	[1,1'-Biphenyl]-4,4'-diamine, 3,3'- dichloro-
trans-1,4-Dichloro-2-butene	110-57-6	2-Butene, 1,4-dichloro-, (E)-
Dichlorodifluoromethane	75-71-8	Methane, dichlorodifluoro-
1,1-Dichloroethane	75-34-3	Ethane, 1,1-dichloro-
1,2-Dichloroethane; Ethylene dichloride	107-06-2	Ethane, 1,2-dichloro-
1,1-Dichloroethylene; Vinylidene chloride	75-35-4	Ethene, 1,1-dichloro
cis-1,2-Dichloroethylene; cis-1,2-Dichloroethene	156-59-2	Ethene, 1,2-dichloro-, (Z)-
trans-1,2-Dichloroethylene	156-60-5	Ethene, 1,2-dichloro-(E)-
2,4-Dichlorophenol	120-83-2	Phenol, 2,4-dichloro-
2,6-Dichlorophenol	87-65-0	Phenol, 2,6-dichloro-
1,2-Dichloropropane	78-87-5	Propane, 1,2-dichloro-
1,3-Dichloropropane; Trimethylene dichloride	142-28-9	Propane, 1,3-dichloro-
2,2-Dichloropropane; Isopropylidene chloride	594-20-7	Propane, 2,2-dichloro-
1,1-Dichloropropene	563-58-6	1-Propene, 1,1-dichloro-
cis-1,3-Dichloropropene	10061-01-5	1-Propene, 1,3-dichloro-, (Z)-
trans-1,3-Dichloropropene	10061-02-6	1-Propene, 1,3-dichloro-, (E)-
Dieldrin	60-57-1	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro- 1a,2,2a,3,6,6a,7, 7a-octahydro-, (1 α ,2 β ,2 α ,3 β ,6 β ,6 α , 7 β ,7 α)-
Diethyl phthalate	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester
O,O-Diethyl O-2-pyrazinyl phosphorothioate; Thionazin	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
Dimethoate	60-51-5	Phosphorodithioic acid, O,O-dimethyl-S-[2-(methylamino)-2-oxoethyl] ester
p-(Dimethylamino)azobenzene	60-11-7	Benzenamine, N,N-dimethyl-4- (phenylazo)-
7,12-Dimethylbenz[a] anthracene	57-97-6	Benz[a]anthracene, 7,12-dimethyl-
3,3'-Dimethylbenzidine	119-93-7	[1,1'-Biphenyl]-4,4'-diamine, 3,3'- dimethyl-

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Table 2		
Assessment Monitoring Parameters		
Common Name ¹	CAS RN ²	Chemical Abstracts Service Index Name ³
alpha, & alpha-Dimethylphenethylamine	122-09-8	Benzeneethanamine, $\alpha\alpha$ -dimethyl
2,4-Dimethylphenol	105-67-9	Phenol, 2,4-dimethyl-
Dimethyl phthalate	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester
m-Dinitrobenzene	99-65-0	Benzene, 1,3-dinitro-
4,6-Dinitro-o-cresol	534-52-1	Phenol, 2-methyl-4,6-dinitro-
2,4-Dinitrophenol	51-28-5	Phenol, 2,4-dinitro-
2,4-Dinitrotoluene	121-14-2	Benzene, 1-methyl-2,4-dinitro-
2,6-Dinitrotoluene	606-20-2	Benzene, 2-methyl-1,3-dinitro-
Dinoseb; DNBP; 2-sec-Butyl- 4,6-dinitrophenol	88-85-7	Phenol, 2-(1-methyl- propyl)-4,6-dinitro-
Di-n-octyl phthalate	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl ester
Diphenylamine	122-39-4	Benzenamine, N-phenyl-
Disulfoton	298-04-4	Phosphorodithioic acid, O,O-diethyl S- [2-(ethylthio) ethyl]ester
Endosulfan I	959-98-8	6,9-Methano-2,4,3 benzodioxathiepin, 6,7,8,9,10,10-hexachloro -1,5,5a,6,9,9a-hexahydro-,3-oxide, (3 α ,5 $\alpha\beta$,6 α ,9 α ,9 $\alpha\beta$)-
Endosulfan II	33213-65-9	6,9-Methano-2,4,3 benzodioxathiepin, 6,7,8,9,10,10-hexachloro -1,5,5a,6,9,9a-hexahydro-,3-oxide, (3 α ,5 $\alpha\alpha$,6 β ,9 β ,9 $\alpha\alpha$)-
Endosulfan sulfate	1031-07-8	6,9-Methano-2,4,3 benzodioxathiepin, 6,7,8,9,10,10-hexachloro -1,5,5a,6,9,9a-hexahydro-,3,3-dioxide
Endrin	72-20-8	2,7:3,6-Dimethanonaphth [2,3-b]oxirene, 3,4,5,6,9,9-hexachloro- 1a,2,2a,3,6,6a, 7,7a-octahydro-, (1 $\alpha\alpha$,2 β ,2 $\alpha\beta$,3 α ,6 α ,6 $\alpha\beta$, 7 β ,7 $\alpha\alpha$)-
Endrin aldehyde	7421-93-4	1,2,4-Methenocyclopenta[cd]-pentalene-5-carboxaldehyde, 2,2a,3,3,4,7-hexachlorodecahydro- (1 α ,2 β ,2 $\alpha\beta$,4 β ,4 $\alpha\beta$,5 β , 6 $\alpha\beta$,6 $\beta\beta$,7R*)
Ethylbenzene	100-41-4	Benzene, ethyl-
Ethyl methacrylate	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester
Ethyl methanesulfonate	62-50-0	Methanesulfonic acid, ethyl ester
Famphur	52-85-7	Phosphorothioic acid, O-[4-[(dimethyl- amino)-sulfonyl] phenyl]-O,O-dimethyl ester
Fluoranthene	206-44-0	Fluoranthene
Fluorene	86-73-7	9H-Fluorene
Heptachlor	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a- tetrahydro-
Heptachlor epoxide	1024-57-3	2,5-Methano-2H-indeno [1,2-b]oxirene, 2,3,4,5,6,7,7-heptachloro- 1a,1b,5,5a,6,6a-hexahydro-, (1 $\alpha\alpha$,1b β ,2 α ,5 α ,5 $\alpha\beta$,6 β ,6 $\alpha\alpha$)
Hexachlorobenzene	118-74-1	Benzene, hexachloro-
Hexachlorobutadiene	87-68-3	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-
Hexachlorocyclopentadiene	77-47-4	1,3-Cyclopentadiene
Hexachloroethane	67-72-1	Ethane, hexachloro-
Hexachloropropene	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-
2-Hexanone	591-78-6	2-Hexanone
Indeno(1,2,3-cd) pyrene	193-39-5	Indeno[1,2,3-cd] pyrene
Isobutyl alcohol	78-83-1	1-Propanol, 2-methyl-
Isodrin	465-73-6	1,4:5,8-Dimethanonaphthalene, 1,2,3,4, 10,10-hexachloro-1,4,4a,5,8,8a- hexahydro- (1 α ,4 α ,4 $\alpha\beta$,5 β ,8 β ,8 $\alpha\beta$)-
Isophorone	78-59-1	2-Cyclohexen-1-one, 3,5,5-tri-methyl-
Isosafrole	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-
Kepone	143-50-0	1,3,4-Metheno-2H- cyclobuta-[cd] pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6- decachlorooctahydro-
Lead	(Total)	Lead
Mercury	(Total)	Mercury
Methacrylonitrile	126-98-7	2-Propene, nitrile 2-methyl-
Methapyrilene	91-80-5	1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2- thienylmethyl)-
Methoxychlor	72-43-5	Benzene, 1,1'-(2,2,2, trichloroethylidene) bis[4-methoxy-
Methyl bromide; Bromomethane	74-83-9	Methane, bromo-
Methyl chloride; Chloromethane	74-87-3	Methane, chloro-
3-Methylcholanthrene	56-49-5	Benz[j]aceanthrylene, 1,2-dihydro- 3-methyl-

Table 2		
Assessment Monitoring Parameters		
Common Name ¹	CAS RN ²	Chemical Abstracts Service Index Name ³
Methyl ethyl ketone; MEK	78-93-3	2-Butanone
Methyl iodide; Iodomethane	74-88-4	Methane, iodo-
Methyl methacrylate	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester
Methyl methanesulfonate	66-27-3	methanesulfonic acid, methyl ester
2-Methylnaphthalene	91-57-6	Naphthalene, 2-methyl-
Methyl parathion; Parathion methyl	298-00-0	Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl) ester
4-Methyl-2-pentanone; Methyl isobutyl ketone	108-10-1	2-Pentanone, 4-methyl
Methylene bromide; Dibromomethane	74-95-3	Methane, dibromo-
Methylene chloride; Dichloromethane	75-09-2	Methane, dichloro-
Naphthalene	91-20-3	Naphthalene
1,4-Naphthoquinone	130-15-4	1,4-Naphthalenedione
1-Naphthylamine	134-32-7	1-Naphthalenamine
2-Naphthylamine	91-59-8	2-Naphthalenamine
Nickel	(Total)	Nickel
o-Nitroaniline	88-74-4	Benzenamine, 2-nitro-
m-Nitroaniline	99-09-2	Benzenamine, 3-nitro-
p-Nitroaniline	100-01-6	Benzenamine, 4-nitro-
Nitrobenzene	98-95-3	Benzene, nitro-
o-Nitrophenol	88-75-5	Phenol, 2-nitro-
p-Nitrophenol	100-02-7	Phenol, 4-nitro
N-Nitrosodi-n-butylamine	924-16-3	1-Butanamine, N-butyl-N-nitroso-
N-Nitrosodiethylamine	55-18-5	Ethanamine, N-ethyl-N-nitroso-
N-Nitrosodimethylamine	62-75-9	Methanamine, N-methyl-N-nitroso-
N-Nitrosodiphenylamine	86-30-6	Benzenamine, N-nitroso-N-phenyl-
N-Nitrosodipropylamine; Di-n-propylnitrosamine	621-64-7	1-Propanamine, N-nitroso-N-propyl-
N-Nitrosomethylethylamine	10595-95-6	Ethanamine, N-methyl-N-nitroso-
N-Nitrosopiperidine	100-75-4	Piperidine, 1-nitroso-
N-Nitrosopyrrolidine	930-55-2	Pyrrolidine, 1-nitroso-
5-Nitro-o-toluidine	99-55-8	Benzenamine, 2- methyl-5-nitro-
Parathion	56-38-2	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester
Pentachlorobenzene	608-93-5	Benzene, pentachloro-
Pentachloronitrobenzene	82-68-8	Benzene, pentachloronitro-
Pentachlorophenol	87-86-5	Phenol, pentachloro-
Phenacetin	62-44-2	Acetamide, N-(4-ethoxyphenyl)
Phenanthrene	85-01-8	Phenanthrene
Phenol	108-95-2	Phenol
p-Phenylenediamine	106-50-3	1,4-Benzenediamine
Phorate	298-02-2	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester
Polychlorinated biphenyls; PCBs	See Note 6	1,1'-Biphenyl, chloro derivatives
Pronamide	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-
Propionitrile; Ethyl cyanide	107-12-0	Propanenitrile
Pyrene	129-00-0	Pyrene
Safrole	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-
Selenium	(Total)	Selenium
Silver	(Total)	Silver
Silvex; 2,4,5-TP	93-72-1	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-
Styrene	100-42-5	Benzene, ethenyl-
Sulfide	18496-25-8	Sulfide
2,4,5-T; 2,4,5-Trichlorophenoxyacetic acid	93-76-5	Acetic acid, (2,4,5-trichlorophenoxy)-
2,3,7,8-TCDD; 2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6	Dibenzo[b,e][1,4]dioxin, 2,3,7,8-tetrachloro-
1,2,4,5-Tetrachlorobenzene	95-94-3	Benzene, 1,2,4,5-tetrachloro-
1,1,1,2-Tetrachloroethane	630-20-6	Ethane, 1,1,1,2-tetrachloro-
1,1,2,2-Tetrachloroethane	79-34-5	Ethane, 1,1,2,2-tetrachloro-
Tetrachloroethylene; Perchloroethylene; Tetrachloroethene	127-18-4	Ethene, tetrachloro-
2,3,4,6-Tetrachlorophenol	58-90-2	Phenol, 2,3,4,6-tetrachloro-
Thallium	(Total)	Thallium
Tin	(Total)	Tin
Toluene	108-88-3	Benzene, methyl-
o-Toluidine	95-53-4	Benzenamine, 2-methyl-

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Table 2		
Assessment Monitoring Parameters		
Common Name ¹	CAS RN ²	Chemical Abstracts Service Index Name ³
Toxaphene	8001-35-2 See Note 7	Toxaphene
1,2,4-Trichlorobenzene	120-82-1	Benzene, 1,2,4-trichloro
1,1,1-Trichloroethane; Methylchloroform	71-55-6	Ethane, 1,1,1-trichloro-
1,1,2-Trichloroethane	79-00-5	Ethane, 1,1,2-trichloro-
Trichloroethylene; Trichloroethene	79-01-6	Ethene, trichloro-
Trichlorofluoromethane	75-69-4	Methane, trichlorofluoro-
2,4,5-Trichlorophenol	95-95-4	Phenol, 2,4,5-trichloro-
2,4,6-Trichlorophenol	88-06-2	Phenol, 2,4,6-trichloro-
1,2,3-Trichloropropane	96-18-4	Propane, 1,2,3-trichloro-
O,O,O-Triethyl phosphorothioate	126-68-1	Phosphorothioic acid, O,O,O-triethyl ester
sym-Trinitrobenzene	99-35-4	Benzene, 1,3,5-trinitro
Vanadium	(Total)	Vanadium
Vinyl acetate	108-05-4	Acetic acid, ethenyl ester
Vinyl chloride	75-01-4	Ethene, chloro-
Xylene (total)	1330-20-7 See Note 8	Benzene, dimethyl-
Zinc	(Total)	Zinc

Notes:

¹ Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals.

² Chemical Abstracts Service registry number. Where "Total" is entered, all species in the groundwater that contain this element are included.

³ CAS index numbers are those used in the 9th Collective Index.

⁴ This substance is often called Bis(2-chloroisopropyl) ether, the name that Chemical Abstracts Service applies to its noncommercial isomer, Propane, 2,2'-oxybis[2-chloro- (CAS RN 39638-32-9).

⁵ Chlordane: This entry includes alpha-chlordane (CAS RN 5103-71-9), beta-chlordane (CAS RN 5103-74-2), gamma-chlordane (CAS RN 5566-34-7), and constituents of chlordane (CAS RN 57-74-9 and CAS RN 12789-03-6).

⁶ Polychlorinated biphenyls (CAS RN 1336-36-3); this category contains congener chemicals, including constituents of Aroclor 1016 (CAS RN 12674-11-2), Aroclor 1221 (CAS RN 11104-28-2), Aroclor 1232 (CAS RN 11141-16-5), Aroclor 1242 (CAS RN 53469-21-9), Aroclor 1248 (CAS RN

12672-29-6), Aroclor 1254 (CAS RN 11097-69-1), and Aroclor 1260 (CAS RN 11096-82-5).

⁷ Toxaphene: This entry includes congener chemicals contained in technical toxaphene (CAS RN 8001-35-2), i.e., chlorinated camphene.

⁸ Xylene (total): This entry includes o-xylene (CAS RN 96-47-6), m-xylene (CAS RN 108-38-3), p-xylene (CAS RN 106-42-3), and unspecified xylenes (dimethylbenzenes) (CAS RN 1330-20-7).

DECISION TREE DIAGRAM. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Solid Waste Division, LR 19:187 (February 1993), amended by the Office of the Secretary, Legal Affairs Division, LR 33:1109 (June 2007), LR 34:1023 (June 2008).

Title 33

ENVIRONMENTAL QUALITY

Part IX. Water Quality

Subpart 2. The Louisiana Pollutant Discharge Elimination System (LPDES) Program

Chapter 23. Definitions and General LPDES Program Requirements

§2301. General Conditions

A. – E. ...

F. All references to the *Code of Federal Regulations* (CFR) contained in this Chapter shall refer to those regulations published in the July 1, 2007 CFR, unless otherwise noted.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular Section 2074(B)(3) and (B)(4).

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Water Resources, LR 21:945 (September 1995), amended LR 23:199 (February 1997), LR 23:722 (June 1997), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 25:1467 (August 1999), LR 26:1609 (August 2000), LR 27:2231 (December 2001), LR 28:996 (May 2002), LR 29:700 (May 2003), repromulgated LR 30:230 (February 2004), LR 30:752 (April 2004), amended by the Office of Environmental Assessment, LR 31:920 (April 2005), amended by the Office of the Secretary, Legal Affairs Division, LR 32:604 (April 2006), LR 33:641 (April 2007), LR 33:2365 (November 2007), LR 34:867 (May 2008).

Chapter 49. Incorporation by Reference

§4901. 40 CFR Part 136

A. 40 CFR Part 136, Guidelines Establishing Test Procedures for the Analysis of Pollutants, July 1, 2007, in its entirety, is hereby incorporated by reference.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular Section 2074(B)(3) and (B)(4).

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Water Resources, LR 21:945 (September 1995), amended LR 23:958 (August 1997), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 25:1467 (August 1999), LR 26:1609 (August 2000), LR 27:2231 (December 2001), LR 28:996 (May 2002), LR 29:700 (May 2003), repromulgated LR 30:232 (February 2004), amended LR 30:752 (April 2004), amended by the Office of Environmental Assessment, LR 31:920 (April 2005), amended by the Office of the Secretary, Legal Affairs Division, LR 32:604 (April 2006), LR 33:641 (April 2007), LR 34:867 (May 2008).

§4903. 40 CFR Chapter I, Subchapter N

A. 40 CFR Chapter I, Subchapter N, Effluent Guidelines and Standards, Parts 401 and 405-471, July 1, 2007, are hereby incorporated by reference.

B. Amendments as promulgated on July 24, 2007, in the *Federal Register*, 72 FR 40245-40250, to 40 CFR Part 412, Concentrated Animal Feeding Operations (CAFO) Point Source Category, are hereby incorporated by reference.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular Section 2074(B)(3) and (B)(4).

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Water Resources, LR 21:945 (September 1995), amended LR 23:958 (August 1997), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 25:1467 (August 1999), LR 26:1609 (August 2000), LR 27:2232 (December 2001), LR 28:996 (May 2002), LR 29:700 (May 2003), LR 29:1467 (August 2003), repromulgated LR 30:232 (February 2004), amended LR 30:752 (April 2004), amended by the Office of Environmental Assessment, LR 31:920 (April 2005), amended by the Office of the Secretary, Legal Affairs Division LR 32:604 (April 2006), LR 32:819 (May 2006), LR 33:641 (April 2007), LR 34:867 (May 2008).

Subpart 3. Louisiana Sewage Sludge and Biosolids Program

Chapter 73. Standards for the Use or Disposal of Sewage Sludge and Biosolids [Formerly Chapter 69]

Subchapter A. Program Requirements

§7301. General Provisions [Formerly §6901]

A. – H.7. ...

8. Treatment Processes. This Chapter does not establish requirements for processes used to treat *domestic sewage*, as defined in Subsection B of this Section, or for processes used to treat sewage sludge prior to final use or disposal, except as provided in LAC 33:IX.7309.

H.9. – I.2.k. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2074(B)(1)(c) and (B)(3)(e).

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:781 (April 2002), repromulgated LR 30:233 (February 2004), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2516 (October 2005), LR 33:2366 (November 2007), repromulgated LR 34:1028 (June 2008).

Title 33

ENVIRONMENTAL QUALITY

Part XI. Underground Storage Tanks

Chapter 11. Financial Responsibility

§1121. Use of the Motor Fuels Underground Storage Tank Trust Fund

The administrative authority was authorized by R.S. 30:2194-2195.10 to receive and administer the Motor Fuels Underground Storage Tank Trust Fund (MFUSTTF) to provide financial responsibility for owners and/or operators of underground motor fuel storage tanks. Under the conditions described in this Section, an owner and/or operator who is eligible for participation in the MFUSTTF may use this mechanism to partially fulfill the financial responsibility requirements for eligible USTs. To use the MFUSTTF as a mechanism for meeting the requirements of LAC 33:XI.1107, the owner and/or operator must be an *eligible participant* as defined in Subsection A of this Section. In addition, the owner and/or operator must use one of the other mechanisms described in LAC 33:XI.1111-1119 or 1123-1125 to demonstrate financial responsibility for the amounts specified in Subsection C of this Section, which are the responsibility of the participant and not covered by the MFUSTTF.

A. Definitions. The following terms shall have the meanings ascribed to them as used in this Section.

* * *

Eligible Participant—any owner of an operating or newly-installed underground storage tank who has registered the tank with the department prior to the date of a release, has paid the annual tank registration fees along with any late payment fees, has met the financial responsibility requirements imposed by Subsection B of this Section, and, if applicable, has met the noncompliance financial responsibility amounts provided in R.S. 30:2195.10.

* * *

B. Financial Responsibility Requirements for MFUSTTF Participants

1. Unless revised by the administrative authority in accordance with R.S. 30:2195.9(A)(3), MFUSTTF participants taking response actions must pay the following amounts before any disbursements are made from the fund:

a. \$10,000 per occurrence for cleanup and an additional \$10,000 per occurrence for third-party judgments, for the period from July 15, 1988 through December 31, 1989;

b. \$15,000 per occurrence for cleanup and an additional \$15,000 per occurrence for third-party judgments, for the period from January 1, 1990 through July 14, 1992;

c. for the period from July 15, 1992 through June 15, 1995:

i. \$5,000 per occurrence for cleanup and an additional \$5,000 for third-party judgments for owners with 1 to 12 tanks in Louisiana;

ii. \$10,000 per occurrence for cleanup and an additional \$10,000 for third-party judgments for owners with 13 to 99 tanks in Louisiana; and

iii. \$15,000 per occurrence for cleanup and an additional \$15,000 for third-party judgments for owners with 100 or more tanks in Louisiana; and

d. \$5,000 per occurrence for cleanup and an additional \$5,000 per occurrence for third-party judgments, for the period from June 16, 1995 through December 31, 2001.

2. Thereafter, the advisory board shall review the financial responsibility requirements on an annual basis and may recommend adjustments to the requirements to the administrative authority. The administrative authority shall determine and set the financial responsibility requirements annually [as provided in R.S. 30:2195.9(A)(3)].

3. Eligible participants must demonstrate financial responsibility for the established amounts by the allowable mechanisms described in LAC 33:XI.1111-1119 and LAC 33:XI.1123-1125.

4. Substitution of a Departmental Lien

a. A lien filed by the department with the same ranking and privilege as that authorized by R.S. 30:2195(F)(2) may be substituted for the financial responsibility requirement of this Section, but in no case shall the lien be substituted on behalf of an owner and/or operator who continues to operate the system. The use of the funds in the MFUSTTF during any fiscal year on a site for which the lien, as authorized by this Section, has been used to substitute for the financial responsibility amount shall not exceed 20 percent of the amount collected in the previous fiscal year. The administrative authority is authorized to exceed the 20 percent limitation contained in this Paragraph upon recommendation by the advisory board.

b. Upon recommendation by the advisory board to exceed the 20 percent limitation as provided in Subparagraph B.4.a of this Section, the administrative authority shall provide written notification to the Senate Committee on Environmental Quality and the House Committee on the Environment listing the project name, the project location, and the amount of the project that exceeds the 20 percent limitation.

C. - D.2. ...

3. For sites with more than one eligible release and with multiple owners and/or operators wishing to use MFUSTTF monies, cost effective procedures shall require that the multiple owners and/or operators provide to the administrative authority a single investigation and corrective action plan that complies with the requirements of

LAC 33:XI.709, 711, and 715. The MFUSTTF shall reimburse the owners and/or operators only after the submittal of one certified request for reimbursement for work that has been completed according to the administrative authority's approved investigation and corrective action plan.

4. For sites with more than one eligible release and with multiple owners and/or operators wishing to use MFUSTTF monies who cannot agree on the selection of a single qualified response action contractor (RAC) for the purpose of complying with Paragraph D.3 of this Section, or who have failed to begin investigation or corrective action within the time required by the administrative authority, the administrative authority shall select a RAC to carry out the investigation and/or corrective action or order the respective owners and/or operators to begin investigation or corrective action without MFUSTTF monies. The administrative authority, in choosing a RAC, shall solicit notices of interest in the project from all approved RACs and select a RAC

randomly through a public drawing from all RACs expressing an interest in the project. The RAC selected shall not be one currently under contract to any one of the multiple owners and/or operators of the site. Owners and/or operators shall continue to monitor site cleanup and shall sign and submit a sworn application requesting reimbursement. Thereafter, the administrative authority shall determine all reasonable costs and shall pay the RAC directly.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq. and specifically 2195-2195.10.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Underground Storage Tank Division, LR 16:614 (July 1990), amended LR 17:658 (July 1991), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2561 (November 2000), LR 27:521 (April 2001), amended by the Office of Environmental Assessment, LR 31:1577 (July 2005), amended by the Office of the Secretary, Legal Affairs Division, LR 34:864 (May 2008).

Title 33

ENVIRONMENTAL QUALITY

Part XV. Radiation Protection

Chapter 1. General Provisions

§102. Definitions and Abbreviations

As used in these regulations, these terms have the definitions set forth below. Additional definitions used only in a certain chapter may be found in that chapter.

* * *

Authorized Medical Physicist—an individual who meets the requirements in LAC 33:XV.763.J.1 and M, or who is identified as an authorized medical physicist or teletherapy physicist on:

1. – 4. ...

* * *

Preceptor—an individual who provides, directs, or verifies the training and experience required for an individual to become an authorized user, an authorized medical physicist, an authorized nuclear pharmacist, or a radiation safety officer.

* * *

Radiation Safety Officer—an individual who:

1. meets the requirements in LAC 33:XV.763.A.1 or 3.a and M; or

2. is identified as a *radiation safety officer* on:

a. a specific medical use license issued by the agreement state or Nuclear Regulatory Commission; or

b. a medical use permit issued by a Nuclear Regulatory Commission master material licensee.

* * *

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Nuclear Energy Division, LR 13:569 (October 1987), amended by Office of Air Quality and Radiation Protection, Radiation Protection Division, LR 18:34 (January 1992), LR 19:1421 (November 1993), LR 20:650 (June 1994), LR 22:967 (October 1996), LR 24:2089 (November 1998), repromulgated LR 24:2242 (December 1998), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2563 (November 2000), LR 26:2767 (December 2000), LR 30:1171, 1188 (June 2004), amended by the Office of Environmental Assessment, LR 31:44 (January 2005), LR 31:1064 (May 2005), amended by the Office of the Secretary, Legal Affairs Division, LR 32:811 (May 2006), LR 32:1853 (October 2006), LR 33:1016 (June 2007), LR 33:2175 (October 2007), LR 34:982 (June 2008).

Chapter 3. Licensing of Radioactive Material

Subchapter D. Specific Licenses

§326. Special Requirements for Issuance of Certain Specific Licenses for Radioactive Material

A. – A.8. ...

B. Security Requirements for Portable Gauges. Each portable gauge licensee shall use a minimum of two independent physical controls that form tangible barriers to secure portable gauges from unauthorized removal, whenever portable gauges are not under the control and constant surveillance of the licensee.

C. – E.1.k. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Nuclear Energy Division, LR 13:569 (October 1987), amended by the Office of Air Quality and Radiation Protection, Radiation Protection Division, LR 18:34 (January 1992), LR 24:2092 (November 1998), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2569 (November 2000), LR 27:1228 (August 2001), LR 30:1188 (June 2004), amended by the Office of Environmental Assessment, LR 31:45 (January 2005), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2525 (October 2005), LR 33:2178 (October 2007), LR 34:1027 (June 2008).

Chapter 7. Use of Radionuclides in the Healing Arts

§725. Release of Individuals Containing Radiopharmaceuticals or Permanent Implants

A. A licensee may authorize the release from its control of any individual who has been administered unsealed byproduct material or implants containing byproduct material if the total effective dose equivalent to any other individual from exposure to the released individual is not likely to exceed 5 millisieverts (0.5 rem).

[NOTE: The current revision of NUREG-1556, Vol. 9, "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Medical Licenses," describes methods for calculating doses to other individuals and contains tables of activities not likely to cause doses exceeding 5 mSv (0.5 rem).]

B. A licensee shall provide the released individual, or the individual's parent or guardian, with instructions, including written instructions, on actions recommended to maintain doses to other individuals as low as is reasonably achievable if the total effective dose equivalent to any other individual is likely to exceed 1 millisievert (0.1 rem). If the total effective dose equivalent to a breast-feeding infant or child could exceed 1 millisievert (0.1 rem) assuming there were no interruption of breast-feeding, the instructions shall also include:

1. guidance on the interruption or discontinuation of breast-feeding; and
2. information on the potential consequences, if any, of failure to follow the guidance.

C. The licensee shall maintain a record of the basis for authorizing the release of an individual in accordance with Subsections A and B of this Section for three years after the date of release of the individual, if the total effective dose equivalent is calculated by:

1. - 4. ...

D. The licensee shall maintain a record for three years after the date of release of the individual that the instructions required by Subsection B of this Section were provided to a breast-feeding woman if the radiation dose to the infant or child from continued breast-feeding could result in a total effective dose equivalent exceeding 5 millisieverts (0.5 rem).

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Radiation Protection, Radiation Protection Division, LR 18:34 (January 1992), amended LR 24:2104 (November 1998), amended by the Office of the Secretary, Legal Affairs Division, LR 34:982 (June 2008).

§729. Use of Radiopharmaceuticals for Uptake, Dilution, or Excretion Studies

A. - C.1. ...

2. prepared by an authorized nuclear pharmacist; a physician who is an authorized user and who meets the requirements specified in LAC 33:XV.763.D, or E.1 and D.3.a.ii.(f), or, before October 24, 2005, LAC 33:XV.763.D; or an individual under the supervision of either as specified in LAC 33:XV.709;

3. - 4. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Radiation Protection, Radiation Protection Division, LR 18:34 (January 1992), amended LR 24:2104 (November 1998), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 30:1177 (June 2004), amended by the Office of the Secretary, Legal Affairs Division, LR 34:982 (June 2008).

§731. Use of Radiopharmaceuticals, Generators, and Reagent Kits for Imaging and Localization Studies

A. - G.4. ...

H. Use of Unsealed Byproduct Material for Imaging and Localization Studies for Which a Written Directive is not Required

1. Except for quantities that require a written directive under LAC 33:XV.777.B, a licensee may use any unsealed byproduct material prepared for medical use for imaging and localization studies that is:

a. obtained from a manufacturer or preparer licensed under LAC 33:XV.328.J or equivalent agreement state requirements; or

b. prepared by:

i. an authorized nuclear pharmacist;

ii. a physician who is an authorized user and who meets the requirements specified in LAC 33:XV.763.D, or E.1 and D.3.a.ii.(f); or

iii. an individual under the supervision, as specified in LAC 33:XV.709, of the authorized nuclear pharmacist in Clause H.1.b.i of this Section or the physician who is an authorized user in accordance with Clause H.1.b.ii of this Section;

c. obtained from and prepared by an NRC or agreement state licensee for use in research in accordance with a Radioactive Drug Research Committee-approved protocol or an Investigational New Drug (IND) protocol accepted by the FDA; or

d. prepared by the licensee for use in research in accordance with a Radioactive Drug Research Committee-approved application or an IND protocol accepted by the FDA.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Radiation Protection, Radiation Protection Division, LR 18:34 (January 1992), amended LR 24:2104 (November 1998), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2589 (November 2000), LR 27:1238 (August 2001), LR 30:1178 (June 2004), amended by the Office of the Secretary, Legal Affairs Division, LR 34:982 (June 2008).

§763. Training

A. Training for a Radiation Safety Officer. Except as provided in Subsection B of this Section, the licensee shall require an individual fulfilling the responsibilities of the radiation safety officer as provided in LAC 33:XV.706 to be an individual:

1. who is certified by a specialty board whose certification process has been recognized by the commission or an agreement state, and who meets the requirements in Paragraphs A.4 and 5 of this Section. (The names of board certifications that have been recognized by the commission or an agreement state will be posted on the NRC's web page.) To have its certification process recognized, a specialty board shall require all candidates for certification to:

a. meet the requirements of Clauses A.1.a.i-iii of this Section, as follows:

i. hold a bachelor's or graduate degree from an accredited college or university in physical science or engineering or biological science with a minimum of 20 college credits in physical science;

ii. have five or more years of professional experience in health physics (graduate training may be substituted for no more than two years of the required experience) including at least three years in applied health physics; and

iii. pass an examination administered by diplomates of the specialty board, which evaluates knowledge and competence in radiation physics and instrumentation, radiation protection, mathematics pertaining to the use and measurement of radioactivity, radiation biology, and radiation dosimetry; or

b. meet the requirements of Clauses A.1.b.i-iii of this Section, as follows:

i. hold a master's or doctor's degree in physics, medical physics, another physical science, engineering, or applied mathematics from an accredited college or university;

ii. have two years of full-time practical training and/or supervised experience in medical physics:

(a). under the supervision of a medical physicist who is certified in medical physics by a specialty board recognized by the commission or an agreement state; or

(b). in a clinical nuclear medicine facility providing diagnostic and/or therapeutic services under the direction of a physician who meets the requirements for an authorized user in Subsection D or Paragraph E.1 of this Section; and

iii. pass an examination, administered by diplomates of the specialty board, that assesses knowledge and competence in clinical diagnostic radiological or nuclear medicine physics and in radiation safety; or

2. who has completed a structured educational program consisting of both:

a. 200 hours of classroom and laboratory training in the following areas:

i. radiation physics and instrumentation;

ii. radiation protection;

iii. mathematics pertaining to the use and measurement of radioactivity;

iv. radiation biology; and

v. radiation dosimetry; and

b. one year of full-time radiation safety experience under the supervision of the individual identified as the radiation safety officer on a commission or agreement state license or permit issued by a commission master material licensee that authorizes similar type(s) of use(s) of byproduct material involving the following:

i. shipping, receiving, and performing related radiation surveys;

ii. using and performing checks for proper operation of instruments used to determine the activity of dosages, survey meters, and instruments used to measure radionuclides;

iii. securing and controlling byproduct material;

iv. using administrative controls to avoid mistakes in the administration of byproduct material;

v. using procedures to prevent or minimize radioactive contamination and using proper decontamination procedures;

vi. using emergency procedures to control byproduct material; and

vii. disposing of byproduct material; or

c. Reserved.

3. who meets one of the following requirements:

a. is a medical physicist who has been certified by a specialty board whose certification process has been recognized by the commission or an agreement state in accordance with Subsection J of this Section, and who has experience in radiation safety for similar types of use of byproduct material for which the licensee is seeking the approval of the individual as radiation safety officer, and who meets the requirements in Paragraphs A.4 and 5 of this Section; or

b. is an authorized user, authorized medical physicist, or authorized nuclear pharmacist identified on the licensee's license and has experience with the radiation safety aspects of similar types of use of byproduct material for which the individual has radiation safety officer responsibilities; and

4. who has obtained written attestation, signed by a preceptor radiation safety officer, that the individual has satisfactorily completed the requirements in Paragraph A.5 and in Clauses A.1.a.i and ii or Clauses A.1.b.i and ii or Paragraph A.2 or Subparagraph A.3.a or b of this Section, and has achieved a level of radiation safety knowledge sufficient to function independently as a radiation safety officer for a medical use licensee; and

5. who has training in the radiation safety, regulatory issues, and emergency procedures for the types of use for which a licensee seeks approval. This training requirement may be satisfied by completing training that is supervised by a radiation safety officer, authorized medical physicist, authorized nuclear pharmacist, or authorized user, as appropriate, who is authorized for the type(s) of use for which the licensee is seeking approval.

B. Training for Experienced Radiation Safety Officer, Teletherapy or Medical Physicist, Authorized Medical Physicist, Authorized User, Nuclear Pharmacist, and Authorized Nuclear Pharmacist

1. An individual identified as a radiation safety officer, a teletherapy or medical physicist, or a nuclear pharmacist on an agreement state or a Nuclear Regulatory

Commission license or a permit issued by a commission or an agreement state broad scope licensee or master material license permit or by a master material license permittee of broad scope before October 24, 2002, need not comply with the training requirements of Subsection A, J, or K of this Section, respectively.

2. An individual identified as a radiation safety officer, an authorized medical physicist, or an authorized nuclear pharmacist on a commission or an agreement state license or a permit issued by a commission or an agreement state broad scope licensee or a master material license permit or by a master material license permittee of broad scope between October 24, 2002 and April 29, 2005, need not comply with the training requirements of Subsection A, J, or K of this Section, respectively.

3. A radiation safety officer, a medical physicist, or a nuclear pharmacist, who used only accelerator-produced radioactive materials, discrete sources of radium-226, or both, for medical uses or in the practice of nuclear pharmacy at a government agency or federally-recognized Indian tribe before November 30, 2007, or at any other location of use before August 8, 2009, or an earlier date as noticed by the NRC, need not comply with the training requirements of Subsection A, J, or K of this Section, respectively, when performing the same uses. A nuclear pharmacist, who prepared only radioactive drugs containing accelerator-produced radioactive materials, or a medical physicist, who used only accelerator-produced radioactive materials, at the locations and time period identified in this Paragraph, qualifies as an authorized nuclear pharmacist or an authorized medical physicist, respectively, for those materials and uses performed before these dates, for purposes of this Chapter.

4. A physician, dentist, or podiatrist identified as an authorized user for the medical use of byproduct material on a license issued by the commission or agreement state, a permit issued by a commission master material licensee, a permit issued by a commission or an agreement state broad scope licensee, or a permit issued by a commission master material license broad scope permittee before October 24, 2002, who performs only those medical uses for which he or she was authorized on that date need not comply with the training requirements of this Section.

5. A physician, dentist, or podiatrist identified as an authorized user for the medical use of byproduct material on a license issued by the commission or agreement state, a permit issued by a commission master material licensee, a permit issued by a commission or an agreement state broad scope licensee, or a permit issued by a commission master material license broad scope permittee who performs only those medical uses for which he or she was authorized between October 24, 2002 and April 29, 2005, need not comply with the training requirements of this Section.

6. A physician, dentist, or podiatrist who used only accelerator-produced radioactive materials, discrete sources of radium-226, or both, for medical uses performed at a government agency or federally-recognized Indian tribe

before November 30, 2007, or at any other location of use before August 8, 2009, or an earlier date as noticed by the NRC, need not comply with the training requirements of this Section when performing the same medical uses. A physician, dentist, or podiatrist who used only accelerator-produced radioactive materials, discrete sources of radium-226, or both, for medical uses at the locations and time period identified in this Paragraph, qualifies as an authorized user for those materials and uses performed before these dates, for purposes of this Chapter.

C. Training for Uptake, Dilution, and Excretion Studies. Except as provided in Subsections B and L of this Section, the licensee shall require the authorized user of unsealed byproduct material for the uses authorized in LAC 33:XV.729 to be a physician:

1. who is certified by a medical specialty board whose certification process has been recognized by the commission or an agreement state, and who meets the requirements in Subparagraph C.3.b of this Section. (The names of board certifications that have been recognized by the commission or an agreement state will be posted on the NRC's web page.) To have its certification process recognized, a specialty board shall require all candidates for certification to:

a. complete 60 hours of training and experience in basic radionuclide handling techniques and radiation safety applicable to the medical use of unsealed byproduct material for uptake, dilution, and excretion studies that includes the topics listed in Clauses C.3.a.i-ii of this Section; and

b. pass an examination, administered by diplomates of the specialty board, that assesses knowledge and competence in radiation safety, radionuclide handling, and quality control; or

2. who is an authorized user under Subsection D or Paragraph E.1 of this Section, or equivalent agreement state requirements, or Subparagraph C.3.a of this Section;

3. who meets the following requirements:

a. has completed 60 hours of training and experience, including a minimum of eight hours of classroom and laboratory training, in basic radionuclide handling techniques applicable to the medical use of unsealed byproduct material for uptake, dilution, and excretion studies. The training and experience must include:

i. classroom and laboratory training in the following areas:

(a). radiation physics and instrumentation;

(b). radiation protection;

(c). mathematics pertaining to the use and measurement of radioactivity;

(d). chemistry of byproduct material for medical use; and

(e). radiation biology; and

ii. work experience, under the supervision of an authorized user who meets the requirements in Subsection C or D or Paragraph E.1 of this Section, or equivalent agreement state requirements, involving:

(a). ordering, receiving, and unpacking radioactive materials safely and performing the related radiation surveys;

(b). performing quality control procedures on instruments used to determine the activity of dosages and performing checks for proper operation of survey meters;

(c). calculating, measuring, and safely preparing patient or human research subject dosages;

(d). using administrative controls to prevent a medical event involving the use of unsealed byproduct material;

(e). using procedures to contain spilled byproduct material safely and using proper decontamination procedures; and

(f). administering dosages of radioactive drugs to patients or human research subjects; and

b. has obtained written attestation, signed by a preceptor authorized user who meets the requirements in Subsection C or D or Paragraph E.1 of this Section, or equivalent agreement state requirements, that the individual has satisfactorily completed the requirements in Subparagraph C.1.a or C.3.a of this Section and has achieved a level of competency sufficient to function independently as an authorized user for the medical uses authorized in LAC 33:XV.729.

D. Training for Imaging and Localization Studies. Except as provided in Subsections B and L of this Section, the licensee shall require the authorized user of unsealed byproduct material for the uses authorized in LAC 33:XV.731.H to be a physician:

1. who is certified by a medical specialty board whose certification process has been recognized by the commission or an agreement state, and who meets the requirements in Subparagraph D.3.b of this Section. (The names of board certifications that have been recognized by the commission or an agreement state will be posted on the NRC's web page.) To have its certification process recognized, a specialty board shall require all candidates for certification to:

a. complete 700 hours of training and experience in basic radionuclide handling techniques and radiation safety applicable to the medical use of unsealed byproduct material for imaging and localization studies that includes the topics listed in Clauses D.3.a.i-ii of this Section; and

b. pass an examination, administered by diplomates of the specialty board, that assesses knowledge and competence in radiation safety, radionuclide handling, and quality control; or

2. who is an authorized user under Paragraph E.1 of this Section, and meets the requirements in Subclause

D.3.a.ii.(f) of this Section, or equivalent agreement state requirements; or

3. who meets the following requirements:

a. has completed 700 hours of training and experience, including a minimum of 80 hours of classroom and laboratory training, in basic radionuclide handling techniques applicable to the medical use of unsealed byproduct material for imaging and localization studies. The training and experience must include, at a minimum:

i. classroom and laboratory training in the following areas:

(a). radiation physics and instrumentation;

(b). radiation protection;

(c). mathematics pertaining to the use and measurement of radioactivity;

(d). chemistry of byproduct material for medical use; and

(e). radiation biology; and

ii. work experience, under the supervision of an authorized user, who meets the requirements in this Subsection, or Subclause D.3.a.ii.(f) and Paragraph E.1 of this Section, or equivalent agreement state requirements, involving:

(a). ordering, receiving, and unpacking radioactive materials safely and performing the related radiation surveys;

(b). performing quality control procedures on instruments used to determine the activity of dosages and performing checks for proper operation of survey meters;

(c). calculating, measuring, and safely preparing patient or human research subject dosages;

(d). using administrative controls to prevent a medical event involving the use of unsealed byproduct material;

(e). using procedures to safely contain spilled radioactive material and using proper decontamination procedures;

(f). eluting generator systems appropriate for preparation of radioactive drugs for imaging and localization studies, measuring and testing the eluate for radionuclidic purity, and processing the eluate with reagent kits to prepare labeled radioactive drugs; and

(g). administering dosages of radioactive drugs to patients or human research subjects; and

b. has obtained written attestation, signed by a preceptor authorized user who meets the requirements in this Subsection, or Paragraph E.1 and Subclause D.3.a.ii.(f) of this Section, or equivalent agreement state requirements, that the individual has satisfactorily completed the requirements in Subparagraph D.1.a or D.3.a of this Section and has achieved a level of competency sufficient to function

independently as an authorized user for the medical uses authorized in LAC 33:XV.729 and LAC 33:XV.731.H.

E. Therapeutic Use of Radiopharmaceuticals

1. Training for Use of Unsealed Byproduct Material for Which a Written Directive is Required. Except as provided in Subsection B of this Section, the licensee shall require the authorized user of unsealed byproduct material for the uses authorized in LAC 33:XV.735.C to be a physician:

a. who is certified by a medical specialty board whose certification process has been recognized by the commission or an agreement state, and who meets the requirements in Division E.1.b.i.(b).(vii) and Clause E.1.b.ii of this Section. (Specialty boards whose certification processes have been recognized by the commission or an agreement state will be posted on the NRC's web page.) To be recognized, a specialty board shall require all candidates for certification to:

i. successfully complete residency training in a radiation therapy or nuclear medicine training program or a program in a related medical specialty. These residency training programs must include 700 hours of training and experience as described in Subclause E.1.b.i.(a) through Division E.1.b.i.(b).(v) of this Section. Eligible training programs must be approved by the Residency Review Committee of the Accreditation Council for Graduate Medical Education, the Royal College of Physicians and Surgeons of Canada, or the Committee on Post-Graduate Training of the American Osteopathic Association; and

ii. pass an examination, administered by diplomates of the specialty board, that tests knowledge and competence in radiation safety, radionuclide handling, quality assurance, and clinical use of unsealed byproduct material for which a written directive is required; or

b. who meets the following requirements:

i. has completed 700 hours of training and experience, including a minimum of 200 hours of classroom and laboratory training, in basic radionuclide handling techniques applicable to the medical use of unsealed byproduct material requiring a written directive. The training and experience must include:

(a). classroom and laboratory training in the following areas:

- (i). radiation physics and instrumentation;
- (ii). radiation protection;
- (iii). mathematics pertaining to the use and measurement of radioactivity;
- (iv). chemistry of byproduct material for medical use; and
- (v). radiation biology; and

(b). work experience, under the supervision of an authorized user who meets the requirements in this Paragraph, or equivalent agreement state requirements. A

supervising authorized user, who meets the requirements in Subparagraph E.1.b of this Section, must also have experience in administering dosages in the same dosage category or categories (i.e., Division E.1.b.i.(b).(vii) of this Section) as the individual requesting authorized user status. The work experience must involve:

(i). ordering, receiving, and unpacking radioactive materials safely and performing the related radiation surveys;

(ii). performing quality control procedures on instruments used to determine the activity of dosages and performing checks for proper operation of survey meters;

(iii). calculating, measuring, and safely preparing patient or human research subject dosages;

(iv). using administrative controls to prevent a medical event involving the use of unsealed byproduct material;

(v). using procedures to contain spilled byproduct material safely and using proper decontamination procedures;

(vi). Reserved.

(vii). administering dosages of radioactive drugs to patients or human research subjects involving a minimum of three cases in each of the following categories for which the individual is requesting authorized user status:

[a]. oral administration of less than or equal to 1.22 gigabecquerels (33 millicuries) of sodium iodide I-131, for which a written directive is required;

[b]. oral administration of greater than 1.22 gigabecquerels (33 millicuries) of sodium iodide I-131 (Experience with at least three such cases also satisfies the requirement in Subdivision E.1.b.i.(b).(vii).[a] of this Section.);

[c]. parenteral administration of any beta emitter, or a photon-emitting radionuclide with a photon energy less than 150 keV, for which a written directive is required; and/or

[d]. parenteral administration of any other radionuclide, for which a written directive is required; and

ii. has obtained written attestation that the individual has satisfactorily completed the requirements in Clause E.1.a.i and Division E.1.b.i.(b).(vii) or Clause E.1.b.i of this Section, and has achieved a level of competency sufficient to function independently as an authorized user for the medical uses authorized in LAC 33:XV.735.C. The written attestation must be signed by a preceptor authorized user who meets the requirements in this Paragraph or equivalent agreement state requirements. The preceptor authorized user who meets the requirements in Subparagraph E.1.b of this Section must have experience in administering dosages in the same dosage category or categories (i.e.,

Division E.1.b.i.(b).(vii) of this Section) as the individual requesting authorized user status.

2. Training for the Oral Administration of Sodium Iodide I-131 Requiring a Written Directive in Quantities Less Than or Equal To 1.22 Gigabecquerels (33 Millicuries). Except as provided in Subsection B of this Section, the licensee shall require an authorized user for the oral administration of sodium iodide I-131 requiring a written directive in quantities less than or equal to 1.22 gigabecquerels (33 millicuries) to be a physician:

a. who is certified by a medical specialty board whose certification process includes all of the requirements in Clauses E.2.c.i and ii of this Section and whose certification process has been recognized by the commission or an agreement state, and who meets the requirements in Clause E.2.c.iii of this Section. (The names of board certifications that have been recognized by the commission or an agreement state will be posted on the NRC's web page.); or

b. who is an authorized user in accordance with Paragraph E.1 of this Section for uses listed in Subdivision E.1.b.i.(b).(vii).[a] or [b] of this Section, Paragraph E.3 of this Section, or equivalent agreement state requirements; or

c. who meets the following requirements:

i. has successfully completed 80 hours of classroom and laboratory training, applicable to the medical use of sodium iodide I-131 for procedures requiring a written directive. The training must include:

(a). radiation physics and instrumentation;

(b). radiation protection;

(c). mathematics pertaining to the use and measurement of radioactivity;

(d). chemistry of byproduct material for medical use; and

(e). radiation biology; and

ii. has work experience, under the supervision of an authorized user who meets the requirements in Paragraph E.1, 2, or 3 of this Section, or equivalent agreement state requirements. A supervising authorized user who meets the requirements in Subparagraph E.1.b of this Section must also have experience in administering dosages as specified in Subdivision E.1.b.i.(b).(vii).[a] or [b] of this Section. The work experience must involve:

(a). ordering, receiving, and unpacking radioactive materials safely and performing the related radiation surveys;

(b). performing quality control procedures on instruments used to determine the activity of dosages and performing checks for proper operation of survey meters;

(c). calculating, measuring, and safely preparing patient or human research subject dosages;

(d). using administrative controls to prevent a medical event involving the use of byproduct material;

(e). using procedures to contain spilled byproduct material safely and using proper decontamination procedures; and

(f). administering dosages to patients or human research subjects that includes at least three cases involving the oral administration of less than or equal to 1.22 gigabecquerels (33 millicuries) of sodium iodide I-131; and

iii. has obtained written attestation that the individual has satisfactorily completed the requirements in Clauses E.2.c.i and ii of this Section, and has achieved a level of competency sufficient to function independently as an authorized user for medical uses authorized in LAC 33:XV.735.C. The written attestation must be signed by a preceptor authorized user who meets the requirements in Paragraph E.1, 2, or 3 of this Section, or equivalent agreement state requirements. A preceptor authorized user who meets the requirement in Subparagraph E.1.b of this Section must also have experience in administering dosages as specified in Subdivision E.1.b.i.(b).(vii).[a] or [b] of this Section.

3. Training for the Oral Administration of Sodium Iodide I-131 Requiring a Written Directive in Quantities Greater Than 1.22 Gigabecquerels (33 Millicuries). Except as provided in Subsection B of this Section, the licensee shall require an authorized user for the oral administration of sodium iodide I-131 requiring a written directive in quantities greater than 1.22 Gigabecquerels (33 millicuries) to be a physician:

a. who is certified by a medical specialty board whose certification process includes all of the requirements in Clauses E.3.c.i and ii of this Section and whose certification process has been recognized by the commission or an agreement state, and who meets the requirements in Clause E.3.c.iii of this Section. (The names of board certifications that have been recognized by the commission or an agreement state will be posted on the NRC's web page.); or

b. who is an authorized user in accordance with Paragraph E.1 of this Section for uses listed in Subdivision E.1.b.i.(b).(vii).[b] of this Section, or equivalent agreement state requirements; or

c. who meets the following requirements:

i. has successfully completed 80 hours of classroom and laboratory training, applicable to the medical use of sodium iodide I-131 for procedures requiring a written directive. The training must include:

(a). radiation physics and instrumentation;

(b). radiation protection;

(c). mathematics pertaining to the use and measurement of radioactivity;

(d). chemistry of byproduct material for medical use; and

(e). radiation biology; and

ii. has work experience, under the supervision of an authorized user who meets the requirements in Paragraph E.1 or 3 of this Section, or equivalent agreement state requirements. A supervising authorized user who meets the requirements in Subparagraph E.1.b of this Section must also have experience in administering dosages as specified in Subdivision E.1.b.i.(b).(vii).[b] of this Section. The work experience must involve:

(a). ordering, receiving, and unpacking radioactive materials safely and performing the related radiation surveys;

(b). performing quality control procedures on instruments used to determine the activity of dosages and performing checks for proper operation of survey meters;

(c). calculating, measuring, and safely preparing patient or human research subject dosages;

(d). using administrative controls to prevent a medical event involving the use of byproduct material;

(e). using procedures to contain spilled byproduct material safely and using proper decontamination procedures; and

(f). administering dosages to patients or human research subjects that includes at least three cases involving the oral administration of greater than 1.22 gigabecquerels (33 millicuries) of sodium iodide I-131; and

iii. has obtained written attestation that the individual has satisfactorily completed the requirements in Clauses E.3.c.i and ii of this Section, and has achieved a level of competency sufficient to function independently as an authorized user for medical uses authorized in LAC 33:XV.735.C. The written attestation must be signed by a preceptor authorized user who meets the requirements in Paragraph E.1 or 3 of this Section, or equivalent agreement state requirements. A preceptor authorized user who meets the requirements in Subparagraph E.1.b of this Section must also have experience in administering dosages as specified in Subdivision E.1.b.i.(b).(vii).[b] of this Section.

4. Training for the Parenteral Administration of Unsealed Byproduct Material Requiring a Written Directive. Except as provided in Subsection B of this Section, the licensee shall require an authorized user for the parenteral administration requiring a written directive to be a physician:

a. who is an authorized user in accordance with Paragraph E.1 of this Section for uses listed in Subdivision E.1.b.i.(b).(vii).[c] or [d] of this Section, or equivalent agreement state requirements; or

b. who is an authorized user in accordance with Subsection F or I of this Section, or equivalent agreement state requirements, and who meets the requirements in Subparagraph E.4.d of this Section; or

c. who is certified by a medical specialty board whose certification process has been recognized by the commission or an agreement state in accordance with Subsection F or I of this Section, and who meets the requirements in Subparagraph E.4.d of this Section; or

d. who meets the following requirements:

i. has successfully completed 80 hours of classroom and laboratory training, applicable to parenteral administrations, for which a written directive is required, of any beta emitter, or any photon-emitting radionuclide with a photon energy less than 150 keV, and/or parenteral administration of any other radionuclide for which a written directive is required. The training must include:

(a). radiation physics and instrumentation;

(b). radiation protection;

(c). mathematics pertaining to the use and measurement of radioactivity;

(d). chemistry of byproduct material for medical use; and

(e). radiation biology; and

ii. has work experience, under the supervision of an authorized user who meets the requirements in Paragraph E.1 or 4 of this Section, or equivalent agreement state requirements, in the parenteral administration, for which a written directive is required, of any beta emitter, or any photon-emitting radionuclide with a photon energy less than 150 keV, and/or parenteral administration of any other radionuclide for which a written directive is required. A supervising authorized user who meets the requirements in Paragraph E.1 of this Section must have experience in administering dosages as specified in Subdivisions E.1.b.i.(b).(vii).[c] and/or [d] of this Section. The work experience must involve:

(a). ordering, receiving, and unpacking radioactive materials safely and performing the related radiation surveys;

(b). performing quality control procedures on instruments used to determine the activity of dosages and performing checks for proper operation of survey meters;

(c). calculating, measuring, and safely preparing patient or human research subject dosages;

(d). using administrative controls to prevent a medical event involving the use of unsealed byproduct material;

(e). using procedures to contain spilled byproduct material safely and using proper decontamination procedures; and

(f). administering dosages to patients or human research subjects, that include at least three cases involving the parenteral administration, for which a written directive is required, of any beta emitter, or any photon-emitting radionuclide with a photon energy less than 150 keV, and/or at least three cases involving the parenteral

administration of any other radionuclide for which a written directive is required; and

iii. has obtained written attestation that the individual has satisfactorily completed the requirements in Subparagraph E.4.b or c of this Section, and has achieved a level of competency sufficient to function independently as an authorized user for the parenteral administration of unsealed byproduct material requiring a written directive. The written attestation must be signed by a preceptor authorized user who meets the requirements in Paragraph E.1 or 4 of this Section, or equivalent agreement state requirements. A preceptor authorized user who meets the requirements in Paragraph E.1 of this Section must have experience in administering dosages as specified in Subdivisions E.1.b.i.(b).(vii).[c] and/or [d] of this Section.

F. Training for Use of Manual Brachytherapy Sources. Except as provided in Subsection B of this Section, the licensee shall require the authorized user of a manual brachytherapy source for the uses authorized in LAC 33:XV.741 to be a physician:

1. who is certified by a medical specialty board whose certification process has been recognized by the commission or an agreement state, and who meets the requirements in Subparagraph F.2.d of this Section. (The names of board certifications that have been recognized by the commission or an agreement state will be posted on the NRC's web page.) To have its certification process recognized, a specialty board shall require all candidates for certification to:

a. successfully complete a minimum of three years of residency training in a radiation oncology program approved by the Residency Review Committee of the Accreditation Council for Graduate Medical Education or the Royal College of Physicians and Surgeons of Canada or the Committee on Post-Graduate Training of the American Osteopathic Association; and

b. pass an examination, administered by diplomates of the specialty board, that tests knowledge and competence in radiation safety, radionuclide handling, treatment planning, quality assurance, and clinical use of manual brachytherapy; or

2. who meets the following requirements:

a. has completed a structured educational program in basic radionuclide handling techniques applicable to the use of manual brachytherapy sources that includes:

i. 200 hours of classroom and laboratory training in the following areas:

- (a). radiation physics and instrumentation;
- (b). radiation protection;
- (c). mathematics pertaining to the use and measurement of radioactivity; and
- (d). radiation biology; and

ii. 500 hours of work experience under the supervision of an authorized user who meets the requirements in this Subsection, or equivalent agreement state requirements at a medical institution, involving:

(a). ordering, receiving, and unpacking radioactive materials safely and performing the related radiation surveys;

(b). checking survey meters for proper operation;

(c). preparing, implanting, and removing brachytherapy sources;

(d). maintaining running inventories of material on hand;

(e). using administrative controls to prevent a medical event involving the use of byproduct material; and

(f). using emergency procedures to control byproduct material; and

b. has completed three years of supervised clinical experience in radiation oncology under the supervision of an authorized user who meets the requirements in this Subsection, or equivalent agreement state requirements, as part of a formal training program approved by the Residency Review Committee for Radiation Oncology of the Accreditation Council for Graduate Medical Education or the Royal College of Physicians and Surgeons of Canada or the Committee on Postdoctoral Training of the American Osteopathic Association. This experience may be obtained concurrently with the supervised work experience required in Subparagraph F.2.b of this Section; and

c. has obtained written attestation, signed by a preceptor authorized user who meets the requirements in this Subsection, or equivalent agreement state requirements, that the individual has satisfactorily completed the requirements in Subparagraph F.1.a, or Paragraph F.2 and Subparagraph F.2.c of this Section, and has achieved a level of competency sufficient to function independently as an authorized user of manual brachytherapy sources for the medical uses authorized in LAC 33:XV.741.

G. Training for Ophthalmic Use of Strontium-90. Except as provided in Subsection B of this Section, the licensee shall require the authorized user of strontium-90 for ophthalmic radiotherapy to be a physician:

1. who is an authorized user in accordance with Subsection F of this Section, or equivalent agreement state requirements; or

2. who meets the following requirements:

a. has completed 24 hours of classroom and laboratory training applicable to the medical use of strontium-90 for ophthalmic radiotherapy. The training must include:

- i. radiation physics and instrumentation;
- ii. radiation protection;

iii. mathematics pertaining to the use and measurement of radioactivity; and

iv. radiation biology; and

b. supervised clinical training in ophthalmic radiotherapy under the supervision of an authorized user at a medical institution, clinic, or private practice that includes the use of strontium-90 for the ophthalmic treatment of five individuals. This supervised clinical training must involve:

i. examination of each individual to be treated;

ii. calculation of the dose to be administered;

iii. administration of the dose; and

iv. follow-up and review of each individual's case history; and

c. has obtained written attestation, signed by a preceptor authorized user who meets the requirements in Subsections F and G of this Section, or equivalent agreement state requirements, that the individual has satisfactorily completed the requirements in Paragraphs G.1 and 2 of this Section and has achieved a level of competency sufficient to function independently as an authorized user of strontium-90 for ophthalmic use.

H. Training for Use of Sealed Sources for Diagnosis. Except as provided in Subsection B of this Section, the licensee shall require the authorized user of a diagnostic sealed source for use in a device authorized in LAC 33:XV.739 to be a physician, dentist, or podiatrist:

1. who is certified by a specialty board whose certification process includes all of the requirements in Paragraphs H.2 and 3 of this Section and whose certification process has been recognized by the commission or an agreement state. (The names of board certifications that have been recognized by the commission or an agreement state will be posted on the NRC's web page.); or

2. who has completed eight hours of classroom and laboratory training in basic radionuclide handling techniques specifically applicable to the use of the device. The training must include:

a. radiation physics and instrumentation;

b. radiation protection;

c. mathematics pertaining to the use and measurement of radioactivity; and

d. radiation biology; and

3. who has completed training in the use of the device for the uses requested.

I. Training for Use of Remote Afterloader Units, Teletherapy Units, and Gamma Stereotactic Radiosurgery Units. Except as provided in Subsection B of this Section, the licensee shall require the authorized user of a sealed source for a use authorized in LAC 33:XV.747 to be a physician:

1. who is certified by a medical specialty board whose certification process has been recognized by the commission or an agreement state, and who meets the requirements in Subparagraph I.2.c and Paragraph I.3 of this Section. (The names of board certifications that have been recognized by the commission or an agreement state will be posted on the NRC's web page.) To have its certification process recognized, a specialty board shall require all candidates for certification to:

a. successfully complete a minimum of three years of residency training in a radiation therapy program approved by the Residency Review Committee of the Accreditation Council for Graduate Medical Education or the Royal College of Physicians and Surgeons of Canada or the Committee on Post-Graduate Training of the American Osteopathic Association; and

b. pass an examination, administered by diplomates of the specialty board, that tests knowledge and competence in radiation safety, radionuclide handling, treatment planning, quality assurance, and clinical use of stereotactic radiosurgery, remote afterloaders, and external beam therapy; or

2. who meets the following requirements:

a. has completed a structured educational program in basic radionuclide techniques applicable to the use of a sealed source in a therapeutic medical unit that includes:

i. 200 hours of classroom and laboratory training in the following areas:

(a). radiation physics and instrumentation;

(b). radiation protection;

(c). mathematics pertaining to the use and measurement of radioactivity; and

(d). radiation biology; and

ii. 500 hours of work experience under the supervision of an authorized user who meets the requirements in this Subsection, or equivalent agreement state requirements at a medical institution, involving:

(a). reviewing full calibration measurements and periodic spot-checks;

(b). preparing treatment plans and calculating treatment doses and times;

(c). using administrative controls to prevent a medical event involving the use of byproduct material;

(d). implementing emergency procedures to be followed in the event of the abnormal operation of a medical unit or console;

(e). checking and using survey meters; and

(f). selecting the proper dose and how it is to be administered; and

b. has completed three years of supervised clinical experience in radiation therapy under the supervision of an

authorized user who meets the requirements in this Subsection, or equivalent agreement state requirements, as part of a formal training program approved by the Residency Review Committee for Radiation Oncology of the Accreditation Council for Graduate Medical Education or the Royal College of Physicians and Surgeons of Canada or the Committee on Postdoctoral Training of the American Osteopathic Association. This experience may be obtained concurrently with the supervised work experience required in Subparagraph I.2.b of this Section; and

c. has obtained written attestation that the individual has satisfactorily completed the requirements in Subparagraph I.1.a or Paragraph I.2 and Subparagraph I.2.c, and Paragraph I.3 of this Section, and has achieved a level of competency sufficient to function independently as an authorized user of each type of therapeutic medical unit for which the individual is requesting authorized user status. The written attestation must be signed by a preceptor authorized user who meets the requirements in this Subsection or equivalent agreement state requirements for an authorized user for each type of therapeutic medical unit for which the individual is requesting authorized user status; and

3. who has received training in device operation, safety procedures, and clinical use for the type(s) of use for which authorization is sought. This training requirement may be satisfied by satisfactory completion of a training program provided by the vendor for new users or by receiving training supervised by an authorized user or authorized medical physicist, as appropriate, who is authorized for the type(s) of use for which the individual is seeking authorization.

J. Training for an Authorized Medical Physicist. Except as provided in Subsection B of this Section, the licensee shall require the authorized medical physicist to be an individual:

1. who is certified by a specialty board whose certification process has been recognized by the commission or an agreement state, and who meets the requirements in Subparagraph J.2.b and Paragraph J.3 of this Section. (The names of board certifications that have been recognized by the commission or an agreement state will be posted on the NRC's web page.) To have its certification process recognized, a specialty board shall require all candidates for certification to:

a. hold a master's or doctor's degree in physics, medical physics, another physical science, engineering, or applied mathematics from an accredited college or university;

b. have two years of full-time practical training and/or supervised experience in medical physics:

i. under the supervision of a medical physicist who is certified in medical physics by a specialty board recognized by the commission or an agreement state; or

ii. in a clinical radiation facility providing high-energy, external beam therapy (photons and electrons with energies greater than or equal to 1 million electron volts) and

brachytherapy services under the direction of a physician who meets the requirements for an authorized user in Subsection F or I of this Section; and

c. pass an examination, administered by diplomates of the specialty board, that assesses knowledge and competence in clinical radiation therapy, radiation safety, calibration, quality assurance, and treatment planning for external beam therapy, brachytherapy, and stereotactic radiosurgery; or

2. who meets the following requirements:

a. holds a master's or doctor's degree in physics, medical physics, another physical science, engineering, or applied mathematics from an accredited college or university, and has completed one year of full-time training in medical physics and an additional year of full-time work experience under the supervision of an individual who meets the requirements for an authorized medical physicist for the type(s) of use for which the individual is seeking authorization. This training and work experience must be conducted in a clinical radiation facility that provides high-energy, external beam therapy (photons and electrons with energies greater than or equal to 1 million electron volts) and brachytherapy services, and must include:

i. performing sealed source leak tests and inventories;

ii. performing decay corrections;

iii. performing full calibration and periodic spot checks of external beam treatment units, stereotactic radiosurgery units, and remote afterloading units, as applicable; and

iv. conducting radiation surveys around external beam treatment units, stereotactic radiosurgery units, and remote afterloading units, as applicable; and

b. has obtained written attestation that the individual has satisfactorily completed the requirements in Subparagraphs J.1.a and b and Paragraph J.3, or Subparagraph J.2.a and Paragraph J.3, of this Section, and has achieved a level of competency sufficient to function independently as an authorized medical physicist for each type of therapeutic medical unit for which the individual is requesting authorized medical physicist status. The written attestation must be signed by a preceptor authorized medical physicist who meets the requirements in this Subsection, or equivalent agreement state requirements for an authorized medical physicist for each type of therapeutic medical unit for which the individual is requesting authorized medical physicist status; and

3. who has training for the type(s) of use for which authorization is sought that includes hands-on device operation, safety procedures, clinical use, and the operation of a treatment planning system. This training requirement may be satisfied by satisfactorily completing either a training program provided by the vendor or by training supervised by an authorized medical physicist authorized for

the type(s) of use for which the individual is seeking authorization.

K. Training for an Authorized Nuclear Pharmacist. Except as provided in this Subsection the licensee shall require the authorized nuclear pharmacist to be a pharmacist:

1. who is certified by a specialty board whose certification process has been recognized by the commission or an agreement state, and who meets the requirements in Subparagraph K.2.b of this Section. (The names of board certifications that have been recognized by the commission or an agreement state will be posted on the NRC's web page.) To have its certification process recognized, a specialty board shall require all candidates for certification to:

a. have graduated from a pharmacy program accredited by the American Council on Pharmaceutical Education (ACPE) or have passed the Foreign Pharmacy Graduate Examination Committee (FPGEC) examination;

b. hold a current, active license to practice pharmacy;

c. provide evidence of having acquired at least 4000 hours of training and experience in nuclear pharmacy practice. Academic training may be substituted for no more than 2000 hours of the required training and experience; and

d. pass an examination in nuclear pharmacy administered by diplomates of the specialty board, that assesses knowledge and competency in procurement, compounding, quality assurance, dispensing, distribution, health and safety, radiation safety, provision of information and consultation, monitoring patient outcomes, research and development; or

2. who meets the following requirements:

a. has completed 700 hours in a structured educational program consisting of both:

i. didactic training in the following areas:

(a). radiation physics and instrumentation;

(b). radiation protection;

(c). mathematics pertaining to the use and measurement of radioactivity;

(d). chemistry of byproduct material for medical use; and

(e). radiation biology; and

ii. supervised practical experience in a nuclear pharmacy involving:

(a). shipping, receiving, and performing related radiation surveys;

(b). using and performing checks for proper operation of instruments used to determine the activity of dosages, survey meters, and if appropriate, instruments used to measure alpha-emitting or beta-emitting radionuclides;

(c). calculating, assaying, and safely preparing dosages for patients or human research subjects;

(d). using administrative controls to avoid medical events in the administration of byproduct material; and

(e). using procedures to prevent or minimize radioactive contamination and using proper decontamination procedures; and

b. has obtained written attestation, signed by a preceptor authorized nuclear pharmacist, that the individual has satisfactorily completed the requirements in Subparagraphs K.1.a, b, and c, or Paragraph K.2, of this Section and has achieved a level of competency sufficient to function independently as an authorized nuclear pharmacist.

L. Physician Training in a Three-Month Program. A physician who, before July 1, 1984, began a three-month nuclear medicine training program approved by the Accreditation Council for Graduate Medical Education and has successfully completed the program, is exempted from the requirements of Subsection C or D of this Section.

M. Recentness of Training. The training and experience specified in Subsections A-K of this Section shall have been obtained within the seven years preceding the date of application, or the individual shall have had continuing applicable experience since the required training and experience was completed.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Radiation Protection, Radiation Protection Division, LR 18:34 (January 1992), amended LR 24:2106 (November 1998), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2590 (November 2000), LR 30:1186 (June 2004), amended by the Office of Environmental Assessment, LR 31:1061 (May 2005), amended by the Office of the Secretary, Legal Affairs Division, LR 32:814 (May 2006), LR 34:983 (June 2008).

Chapter 15. Transportation of Radioactive Material

§1517. Incorporation by Reference

A. 10 CFR Part 71, Appendix A, January 1, 2007, is hereby incorporated by reference.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2104 and 2113.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 26:1270 (June 2000), amended LR 27:2233 (December 2001), LR 28:997 (May 2002), LR 29:701 (May 2003), LR 30:752 (April 2004), amended by the Office of Environmental Assessment, LR 31:920 (April 2005), amended by the Office of the Secretary, Legal Affairs Division, LR 32:604 (April 2006), LR 33:641 (April 2007), LR 34:867 (May 2008).

